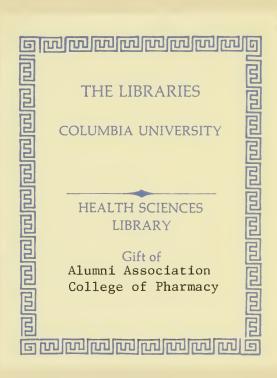


Columbia University in the City of New York

ANNUAL REPORTS





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ANNUAL REPORT

OF THE

PRESIDENT AND TREASURER

TO THE

TRUSTEES

WITH ACCOMPANYING DOCUMENTS

FOR THE YEAR ENDING

JUNE 30, 1930



MORNINGSIDE HEIGHTS

NEW YORK

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REPORT OF THE PRESIDENT OF COLUMBIA UNIVERSITY

FOR THE YEAR ENDING JUNE 30, 1930

TO THE TRUSTEES:

As prescribed by the Statutes, the annual report to the Trustees on the condition and needs of the University is herewith submitted. The size and complexity of the University's educational system make it quite impossible to present otherwise than by the reports of the several Deans and Directors most of the happenings and recommendations of importance which should have the attention of the Trustees. Therefore, the accompanying reports of the several Deans and Directors are earnestly commended to the careful study of the Trustees, and for examination and appropriate action by the several Committees.

The many-sided work of the University has gone forward with increasing effectiveness and with many more genuine contributions to the University's ideal of Scholarship and Service than can here be recorded.

The Year 1929–1930

Of particular importance among the happenings of the year are the celebration of the 175th anniversary of the granting of the Royal Charter which established King's College in the Province of New York, accompanied by distinguished and impressive ceremonies culminating in the award of 49 honorary degrees to distinguished alumni not immediately associated with the University of today, of 74 honorary degrees to members of the Faculties and of the administrative staff, and of 47 University Medals to alumni residing in foreign lands, in recognition of exceptional service; the establishment as an incident of this celebration, on the recommendation of the Committee on Honors, of 12 memorial professorships to commemorate the distinguished university service of Dr. David Hosack, Professor of Botany 1795–1811; of Lorenzo Da Ponte, Professor of Italian 1826–1837; of Benjamin Moore

ities; the establishment by the generous gift of Mrs. Nathan J. Miller of an endowed professorship of Jewish history and institutions, to which Dr. Salo Baron, a distinguished scholar trained at the University of Vienna, was appointed; the withdrawal from administrative service by resignation, after years of devoted and successful labor, of Professor George B. Pegram as Dean of the Faculty of Engineering, of Dr. Henry H. Rusby as Dean of the Faculty of the College of Pharmacy, and for reasons of health, of Dr. William Darrach, Dean of the College of Physicians and Surgeons; the appointment in succession to Dean Pegram of Joseph W. Barker, Professor of Electrical Engineering in Lehigh University, and in succession to Dr. Rusby of Professor Henry V. Arny of the College of Pharmacy; the welcome gift to the University by Herbert Gardiner Lord, Professor of Philosophy, retired, of his valuable library of philosophical books; the carrying forward of a new program for planting on the Quadrangle, which has greatly improved the attractiveness of the University grounds; the going forward with the construction of a new boat house on the Harlem River at Baker Field, made possible by the generous gift of Edwin Gould of the Class of 1888; the completion and equipment of Schermerhorn Hall Extension, with its admirable provision for research laboratories in the several departments assigned to space therein, with the resultant making available space in Schermerhorn Hall for University needs that had become most pressing; starting the construction of a new and beautifully planned Residence Hall for students at the Medical Center, the gift of Mr. Edward S. Harkness, which it is hoped will be completed early in the winter of 1931-1932; the intensive study of the problem of completing University Hall, and of providing either in that building or elsewhere for greatly needed additions to the University's library facilities, as well as a modern and well-equipped gymnasium and also a suitable auditorium for the more formal and distinguished ceremonies of each academic year; the consideration, without present prospects for action, of the needs of the Departments of English, of Chemical Engineering and of Mechanical Engineering for additional and specially planned buildings and equipment; the purchase by the Trustees of the King's Crown Hotel on 116th Street east of Amsterdam Avenue, with the expectation that it will be maintained in a way to meet the convenience of the increasing number of visitors to Morningside Heights; the visits made to the University by distinguished scholars, men of science and publicists, all of whom delivered formal addresses or were tendered formal receptions, including Dr. Carlos Saavedra Lamas of Buenos Aires, formerly Minister of Justice and formerly Chairman of the Committee on Foreign Relations in the Lower House of Congress in Argentina; M. Petit Dutaillis of Paris; the Lord Bishop of Winchester; M. Guy, Rector of the University of Grenoble; General Smuts, who was made a Doctor of Laws, honoris causa; Dr. Nicholas Iorga, President of the University of Bucharest, together with His Excellency, the Rumanian Minister at Washington; the Italian Ambassador at Washington; Principal Sir James Irvine of the University of St. Andrews; Principal John Murray of the University of Exeter; Sir Michael Sadler, Master of University College, Oxford, a recipient of the honorary degree of Doctor of Laws at the Commencement of 1902, who took The Outlook in Secondary Education as his subject for lectures delivered at Teachers College in March on the Julius and Rosa Sachs Foundation; the important annual meeting of the Association of American Universities and the Association of American Medical Colleges on November 7, 8 and 9; the annual Conference of Eastern College Librarians on November 30; the annual meeting of the American Philosophical Association on December 30 and 31; the visit during August and September of the members of the International Congress of Physiologists and Psychologists; and the visit on January 20 of a carefully selected group of teachers from the Republic of Brazil;

The presence at the University during the year as Visiting Professors of Professors Samuel Angus (Education), of the University of Sydney, Thomas E. Benner (Education), formerly Chancellor of the University of Porto Rico, Ellwood

P. Cubberley (Education), of Stanford University, Miles A. Dresskell (Music Education), of State Teachers College, San Jose, California, Alfons Hilka (French), of the University of Göttingen, Ernest Horn (Education), of the University of Iowa, Vittorio Macchioro (Religion), of the University of Naples, Antoine Meillet (French), of the Collège de France, E. Allison Peers (Modern Comparative Literature), of the University of Liverpool, Giuseppe Prezzolini (Italian), Chief of the Information Section of the Bureau of Intellectual Coöperation of the League of Nations, and Henry Suzzallo (Education), formerly President of the University of Washington;

The delivery of lectures or recitals before the Institute of Arts and Sciences by many distinguished visitors from this country and abroad, including John Cowper Powys, Professor Richard Burton, Norman Thomas, Lawrence Tibbett, Professor Robert S. Conway of the University of Manchester, the Ben Greet Players, Edward H. Sothern, Abbé Ernest Dimnet, Hugh Walpole, Dr. Alfred Adler, Rev. Dr. S. Parkes Cadman, Mrs. Patrick Campbell, Professor Joseph Redlich, Everett Dean Martin, Miss Ruth Draper, W. Cabell Greet, Professor Enrico Bompiani and Principal William Boothby Selbie of Mansfield College, Oxford;

The honor done the University through the selection by the American Ambassador to Cuba of Professor Philip C. Jessup of the Department of Public Law and Jurisprudence, to render special technical assistance to the Embassy; the designation by the President of Miss Agnes Wayman of the Department of Physical Education at Barnard College, to serve as a member of the White House Conference on Child Health and Protection; the appointment by the President of Professor Wesley C. Mitchell of the Department of Economics, to serve as Chairman of the Research Council on Social Trends in America; the appointment of Professor William A. Boring of the Department of Architecture, to be Visiting Professor at the American Academy in Rome; the election of Professor Evarts B. Greene of the Department of History, to be President of the American Historical Associa-

tion; the election of Professor DeForest Stull of Teachers College to be President of the National Council of Geography Teachers; the designation by the Department of Public Works of the State of California of Professor Charles P. Berkey of the Department of Geology and Mineralogy, to serve as member of the Consulting Board on the Safety of the proposed San Gabriel Dam, as well as his selection to be head of the American Delegation to the International Geological Congress held in Pretoria; the designation of Professor Edwin R. A. Seligman of the Department of Economics, to be Visiting Lecturer at the University of Havana, and his subsequent appointment as Corresponding Member of the Cuban Academy of Social, Political and Economic Sciences; the invitation to Professor Carlton J. H. Hayes of the Department of History, to be Visiting Professor of History at Johns Hopkins University; the appointment of Professor LaRue Van Hook of Barnard College, to be annual professor at the American School of Classical Studies at Athens; the invitation accepted by Professor H. Parker Willis of the School of Business, from the Foreign Minister of Rumania to visit that country for the purpose of making a survey of its economic resources, and especially a study of the condition of agricultural credit in that country; the designation of Professor James C. Egbert, Director of University Extension, to be a member of the Special Committee on the extension of medical studies throughout the various states, appointed by the National University Extension Association; the invitation tendered to Dr. Linsly R. Williams, a Trustee of the University, to be State Health Commissioner of the State of New York, which invitation he felt obliged to decline; the designation of Assistant Professor Clarence A. Manning of the Department of Slavonic Languages, to give courses in Russian literature at the University of California; the service on the Noise Abatement Commission, appointed by the Mayor of the City of New York, of Professor Frederick Tilney of the Department of Neurology and Professor Albin H. Beyer of the Department of Civil Engineering; the service of Professor Robert E. Chaddock of the Department of

Social Science on the executive committee appointed by the Secretary of Commerce to prepare the schedules for the 1930 census; the journey of Dr. Leuman M. Waugh of the School of Dental and Oral Surgery, as representative of the United States Public Health Service to investigate the mouth and teeth of the Alaskan Eskimo, especially in their relation to various diets; the work of Assistant Professor Roy J. Colony of the Department of Geology and Mineralogy. as geologist for the Saratoga Springs Commission and for the Board of Water Commissioners of Wilmington, Delaware: the extraordinarily interesting expedition to Central Africa, undertaken in conjunction with the American Museum of Natural History, to secure and preserve two types of gorilla, of which expedition Professors James H. McGregor, William K. Gregory and Mr. Henry C. Raven of the Department of Zoölogy were members; the important influence of Dr. James E. Russell, Dean Emeritus of Teachers College, as Chairman of the Organizing Committee and member of the Executive Committee of the National Advisory Committee on Education; the designation of Professor Paul R. Mort of Teachers College, to be adviser to the Education Finance Commissions of both Michigan and Oklahoma, and that of Professor Nickolaus L. Engelhardt of Teachers College, to be Director of the Educational Survey of the Panama Canal Zone, authorized by the Secretary of War; the appointment of Dr. Thomas D. Wood of Teachers College, to be Chairman of the Committee on the School Child of the White House Conference on Child Health and Protection; of Professor Raymond C. Moley as a member of the Commission appointed by Governor Roosevelt of New York to make plans and propose necessary legislation for a new parole system; and the many other honors and services that are set out in detail in the accompanying reports of the several Deans and Directors:

The varied activity of academic teachers and research workers, as evidenced by the continuation of the publication by the Columbia University Press of the Social and Economic Studies of Post-War France, edited by Professor Carlton J. H. Hayes of the Department of History; the very comprehensive

and original program of research in Indian languages carried on under the direction of Professor Franz Boas of the Department of Anthropology; the vigorous activity of the Institute of Czechoslovak Studies in many fields of intellectual endeavor. under the direction of Assistant Professor Clarence A. Manning of the Department of Slavonic Languages; the discovery by Professor Hal T. Beans of the Department of Chemistry in association with Professor Louis P. Hammett and Dr. George H. Walden, Ir., of the same department, of a new chemical composition known as Durium, which is a synthetic resin believed to be of exceptional value in connection with the simplifying of the present methods of making phonograph records and soundpicture discs; the organization of research in legal history and criminology under the supervision of the Faculty of Law; the establishment of the Facsimile Text Society under the leadership of Professor Frank A. Patterson of the Department of English; the important scientific tour of Professor Douglas W. Johnson of the Department of Geology and Mineralogy, for the purpose of studying the geological features of certain parts of Africa, Australia, New Zealand and Java, together with his address on Geomorphic Aspects of Rift Valleys, before the International Geological Congress at Pretoria, and his address on Shoreline Problems before the Geological Section of the Philosophical Society of Wellington;

The new distinction which came to the University through the award of honorary degrees and foreign decorations, including that of LL.D. by Hobart College to H. Hobart Porter, a Trustee of the University; that of Litt.D. by Gettysburg College to Levering Tyson, Associate Director of University Extension; that of Sc.D. by Rutgers College to Professor Bergen Davis of the Department of Physics; that of Mus.Doc. by Wesleyan University to Professor Walter Henry Hall of the Department of Music; that of Litt.D. by Wesleyan University to Professor Lynn Thorndike of the Department of History; that of LL.D. by the University of California to Harvey Wiley Corbett of the Department of Architecture; that of LL.D. by the University of Chicago to Professor Wesley C. Mitchell of the Department of Economics;

that of LL.D. by the University of South Carolina to Professor William R. Shepherd of the Department of History; that of Ed.D. by Brown University to Professor Charles C. Tillinghast of Teachers College; and also the awards to Professor William W. Lawrence of the Department of English of the Swedish Royal Order of Vasa, First Class; to Professor James P. C. Southall of the Department of Physics of the Gold Medal for research in educational work established by the Distinguished Service Foundation of Optometry; the election of Professor Franz Boas of the Department of Anthropology to honorary membership in the Wuerzburg Geographic Society; the election of Professor Paul Monroe of Teachers College as Honorary Fellow of the Hungarian Academy and his decoration by the Ministry of Education of Persia; the election of Dr. Charles C. Williamson, Director of Libraries, as Chevalier of the Légion d'Honneur; and the wide celebration of the 70th anniversary of the birth of Professor John Dewey of the Department of Philosophy:

The welcome addition to the University's corps of scholars and teachers of Professors Bert G. Anderson (Dentistry), from Peiping Union Medical College, George W. Bachman (Parasitology), from Johns Hopkins University, Joseph W. Barker (Engineering), from Lehigh University, Salo Baron (Jewish History, Literature and Institutions), from the Jewish Institute of Religion, Lowell P. Beveridge (Music), from Harvard University, Wilbert L. Carr (Latin), from the University of Michigan, Lemuel C. Dillenback (Design), from the University of Illinois, Frank L. Eidmann (Mechanical Engineering), from Princeton University, Crawford F. Failey (Biological Chemistry), from Johns Hopkins University, James P. Gifford (Law), practising lawyer, George B. Karelitz (Mechanical Engineering), research engineer, Rustin McIntosh (Diseases of Children), from Johns Hopkins University, Elmer D. Merrill (Botany), Director of the New York Botanical Garden, Samuel T. Orton (Neurology and Neuro-Pathology), from the Neurological Institute of New York, Franz Schrader (Zoölogy), from Bryn Mawr College, Warren M. Sperry (Biological Chemistry), from the University of

Rochester, and Alexander A. Weech (Diseases of Children), from Peiping Union Medical College;

The appointment as Visiting Professors for the year 1930–1931 of Professors William B. Boyd (Education), of the University of Glasgow, Karl M. Dallenbach (Psychology), of Cornell University, Jan J. L. Duyvendak (Chinese), of the University of Leyden, Edmond Faral (French), of the Collège de France, William L. Langer (History), of Harvard University, Sten Bodvar Liljegren (Comparative Literature), of the University of Greifswald, William W. McClelland (Education), of St. Andrew's University, Paul Merker (German) of the University of Breslau, Albert Jay Nock (American History and Politics), John K. Norton (Education), Director of the Division of Research of the National Education Association, Fortunat Strowski (French) of the University of Paris, and John D. Willard (Education), Field Representative of the American Association for Adult Education;

The promotion, following the adoption of the budget, of seventeen Associates, Instructors and Lecturers to be Assistant Professors, of eight Assistant Professors to be Associate Professors, of one Associate Professor to be Professor, of three Assistant Clinical Professors and one Associate to be Clinical Professors, and of three Clinical Professors to be Professors;

The retirement from active service at their own request on June 30, 1930, of George F. Canfield, Dwight Professor of Law, John Dewey, Professor of Philosophy, Walter Henry Hall, Professor of Choral and Church Music, Robert A. Harper, Torrey Professor of Botany, Charles A. Harriman, Assistant Professor of Architecture, and Lincoln De Groot Moss, Assistant Professor of Mechanical Engineering.

Columbia University is one of the oldest and most influential of those typical American undertakings in the public interest that are established by the aid and authority of Government to do their continuing work in the sphere of Liberty. It draws no direct aid from Government or from public tax, and it asks none. It depends for its continuance and effectiveness upon the conservation

and wise administration of those resources which have come to it from time to time through the benefaction of individuals or groups, and upon the constant additions to these resources which kindly generosity and far-sighted care for the highest public interest so steadily bring to it. The University is, in the largest sense, the child of the great city whose life it crowns and for whose disinterested spirit of scholarship and service it speaks with so large a measure of authority and influence. Columbia depends upon the city of New York for its very life.

The metropolitan city is itself so powerful, so rich, so generous, and so abundant in sympathy for suffering or distress or want wherever these exist, that it has become the quick and customary resort of every seeker for assistance, no matter of what sort, to what end, or in what part of the world. Suffering and want in Belgium or the Near East, an earthquake at Tokio, a destructive flood in the Mississippi Valley, or the ambitions and hopes of schools, colleges, universities, hospitals, libraries, museums, by the hundred, wherever situate, are the cause of quick and always successful appeal to the heart and the hand of the metropolitan city. One would not have it otherwise; yet it comes about that it is precisely this spirit of quick generosity, widespread, fine, and abundant, which often leads the city of New York to take its own great institutions for granted and to assume that in some way and somehow their multiplying needs will be met. So it results that an institution which best represents New York and which depends upon that city for support may be the very institution to find itself most heavily hampered by just that widespread spirit of generosity in which every true New Yorker takes so great pride.

The Trustees of Columbia University have not been willing to engage, in any customary and organized fashion, in an appeal to the public for aid in bearing their steadily increasing burdens or to harass their generous friends with multiplying appeals for benefaction. They have preferred another way. They have faith that the University's superb national and international influence and repute and the literally amazing

scholarly activity in the interest of science, of scholarship, and of the public welfare on the part of the noteworthy groups of men and women who are assembled on Morningside Heights and at the Medical Center, will tell their own tale and produce their own effect on the public mind. The Trustees have felt that men and women of fortune, when disposing of their fortunes, would not wish to lose the honor of forever associating themselves in some way with Columbia University and its work.

During the past decade the increasing costs of University work of every kind, and the obvious inadequacy in many respects of the University's present physical equipment, have brought grave perplexities in their train. In order to meet even in part the most pressing of the University's needs, an indebtedness of more than \$6,000,000 has been incurred during the past few years, since no other way appeared in which to meet the costs involved. Not only is the resultant debt service a severe and crippling charge upon the annual income of the University, but the end is not yet by any means.

In order that the University's problems might be laid before the public with dignity, with authority, and with complete detachment from anything which might look like mere institutional interest, a letter was addressed by the President of the University on February 16, 1929, to six most representative citizens of New York,—all men of affairs of high repute, each representing a different interest and a different point of view, and no one of the six associated in any way with the administration of the University.

Those to whom this letter was addressed were Bernard M. Baruch, Walter S. Gifford, Philip G. Gossler, Darwin P. Kingsley, Morgan J. O'Brien, and Henry S. Pritchett. Their names will at once be recognized as those of highest authority and as representing practically every aspect of the social and business life of New York.

These gentlemen were good enough to accept the invitation thus tendered to them, and for some nine months next following they took pains in their own way to study the organization, the work, and the needs of the University, to examine its physical equipment and its financial reports, and to draw their own conclusions.

These conclusions were embodied in a letter addressed to the President of the University under date of December 3. 1929, signed by the six gentlemen named. This letter, which is a document of highest importance and value and which will always be so regarded in the history of Columbia, discussed succinctly and with authority the relation of Columbia University to the city of New York, the financial resources and income of the University, the annual expenditures, the University's national and international influence, the needs of the immediate future, and then concluded with an appeal to the citizenship of New York. In this document it is made plain that Columbia University does not aim at physical or numerical expansion, but rather has for years past steadily resisted every temptation to those ends; and that the University requires large funds in order permanently to establish the academic career on the plane which is becoming and due to it and in order to carry to early completion the plans for adequate physical equipment for work now in progress which have now been waiting these many years. The letter ends with these words:

The fortunes that accumulate in the hands of our citizens come into existence by reason of New York itself, which gathers in extraordinary degree the forces—financial, economic, intellectual, and artistic—of a great new continent. Whoever has shared in the prosperity of New York's marvelous development should consider it a privilege to aid by gift in his or her lifetime, or by bequest, the great agency of the intellectual life represented by Columbia University. Such remembrance, arising unasked from the idealism of its people, will be the finest fruitage of citizenship.

In this document the immediate needs of the University are stated to be \$39,500,000, of which the sum of \$9,500,000 is the estimated cost of additional physical equipment urgently needed, and \$30,000,000 the amount of additional endowment required adequately and properly to maintain the work of the University on the high plane of excellence which the Trustees desire to reach and which the community and the country have every reason to expect.

It is the hope and the belief of the Trustees that this document, which is printed in full as an appendix to this Report, will be profoundly influential not only today and tomorrow but through the years. It is their confident expectation that men and women of large means who are casting about for judicious acts of benefaction or who are planning the ultimate disposition of their fortunes, will not fail in each and every case to include some provision that will associate their names forever with Columbia University in the City of New York.

The form of organization which has developed at Columbia through the years is essentially that federal form which is more and more commending itself to public Unity of the opinion as the most effective, most secure. University and most elastic organization of the nations of the world. The federal form of government may and does go to the full extreme of centralized and compact organization. as exemplified by the United States of America and by the new German State. It may take the much looser and less markedly integrated form which is typified by the British Commonwealth of Nations. It may, again, take the form which is steadily growing in favor to bring into existence an economic union of the states of central and western Europe and a similar economic union of the Balkan states. It may yet prove to be the solution of the problems of the Government of Ireland and the Government of India.

The essential elements of this federal form of organization, whether political or educational, are that there be whole-hearted understanding and sympathetic coöperation on the part of the several units which are working together. There must, in addition, be a sufficient form of unity and a central organ to insure that this spirit of coöperation shall have full opportunity for expression and for growth. On the other hand, the central organs of administration must not be so penetrating, so meticulous, and so local in their authority as to limit, much less to destroy, the spirit and principle of local self-government, the expression of local pride, and the appeal to local loyalty and enthusiasm.

The federal form of organization has grown up at Columbia with perfect naturalness. It began when in 1858 a School of Law was organized as a thing apart from Columbia College and held responsible for its own financial administration. A second step was taken in 1864, when the School of Mines was organized and entrusted to a separate faculty under what were at first very definite financial limitations. Then, beginning in 1880, came the organization of that graduate work which justifies the name University, with the establishment of the Faculties of Political Science, Philosophy, and Pure Science, each of which was self-governing in its field. All these were maintained by the University corporation itself. In 1898 Teachers College entered the educational system of Columbia as a separate and financially independent unit, as did Barnard College in 1900. The College of Pharmacy followed on similar terms in 1904, and St. Stephen's College, which likewise maintained its corporate independence and financial responsibility, was added in 1928. The characteristic of the federal organization of the University's educational system is its simplicity, its elasticity, its freedom from bureaucratic control, and its provision for the largest possible measure of local self-government throughout the whole series of faculties and corporations which are now included popularly and actually, although not legally, under the name Columbia University.

The symbol of the unity of the University is the office of President. Its most impressive public manifestation is the annual Commencement, culminating in the stately ceremony where all University degrees are publicly conferred and all University honors publicly awarded. The organ which has been brought into existence to give expression to the unity of the University is the University Council, which exercises the large and manifold powers conferred upon it by the Statutes of the University, and upon which sit representatives of every faculty and of every separate corporate interest.

Had a uniform, bureaucratic, and legalistic system of University organization been substituted for this natural growth of the federal principle, the result would long ago have been disastrous. The fact is that Columbia University is a typical community and a typical social and political organization. It may well be looked upon as a useful and illuminating experiment in the adaptation of the federal organization of government to the largest affairs and interests of men.

New ideas find their way slowly into closed minds. The most modern type of university has some difficulty in making itself understood. The newest type of university organization and influence, particularly as developed in Paris, on Morningside Heights, and now

in London, while the direct and legitimate outgrowth of university development over nearly a thousand years, is something novel and intensely modern when in contrast with what has gone before. In these new developments every lofty ideal, every high purpose, and every disinterested undertaking which marked Bologna and Paris and Oxford in their earliest days is sacredly preserved and closely cherished. But the typical university of the twentieth century is no longer of the monastic or secluded type. It is not to be found in the village or the small town, in the secluded valley or on a remote hilltop. It is put where men congregate and work and think and act. The newly developed university immerses itself in the life of its time and aims always and everywhere to make its lofty ideals and its notable achievements in science, in letters, and in the arts, available to the largest possible number of men, that their lives may be uplifted and stimulated and guided. At no time was the university a mere school, and now it has become a school only in form. The twentieth-century university is conscious of its place as a public service institution in the field of truthseeking, truth-preserving, and truth-distributing. dealt with books and with laboratories alone, it would quickly be felt to be a remote thing, quite apart from the interests and activities of men. Beyond books and laboratories, however, this university, whose natural home, as Cardinal Newman long ago pointed out, is the great city, deals with human nature, with human problems, with human aspirations, and with human accomplishments. For it no science is so pure,

no knowledge so remote, that it cannot and should not be offered to men for their help and their uplifting.

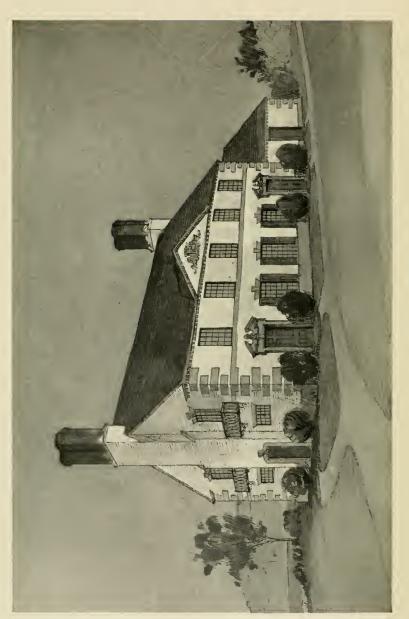
Every human being who can read and who wishes to think is or can readily become a university student in the largest sense of the word. He may not be enrolled in university residence as candidate for a degree, but that belongs to the more formal side of the university's work and has to do only with the relatively few who are preparing themselves in scholarly fashion for some profession or career which rests upon well-organized and well-articulated knowledge. Public opinion, public understanding, public appreciation, public betterment are the aims of the present-day university which has from its very beginning made clear its place as one of the fundamental factors of human institutional organization. Destroy or suppress the truth-seeking instinct, and civilization will perish in short order. Destroy or suppress the truthteaching instinct, and the truth seekers will speedily become a detached and esoteric group without influence upon the mass of mankind. They would be admirable museum pieces, but quite useless as factors in the life of men.

The accompanying Report of the Director of University Extension discusses some of these matters and offers interesting food for reflection. It is almost a century since the notion of the wider university presented itself, oddly enough, first at Oxford. So long ago as 1850, Dean Mansel, in testifying before a parliamentary commission, expressed the opinion that University Extension was not then immediately practicable. Some thirty years later, however, University Extension was provided at Oxford with a definite organization and a concrete and highly useful program. It was defined as "carrying university teaching to the doors of the people who cannot come up to the University."

That the same notion was not wholly strange in the United States is testified by the fact that so long ago as 1854 the opinion was expressed in a report written by Mr. William Betts, a most influential Trustee of Columbia from 1842 to 1884, that, first, it is the duty of the College to give as good an education as possible, and, second, that it is its duty to extend



CONFERRING OF HONORARY DEGREES AT THE 176TH COMMENCEMENT



EDWIN GOULD BOAT HOUSE BAKER FIELD

the benefits of that education to as large a number as possible. The same Trustee, in an address delivered at the inauguration of newly appointed professors of Columbia College in 1858, defined the term "university studies" as denoting that instruction which might be imparted after graduation. To the fulfillment of these old-time prophecies of a distinguished and influential figure in the building of Columbia, the University of today devotes itself with eagerness and enthusiasm.

Moreover, the University looks upon the widespread and momentous service of its scholars as University service in the truest and fullest sense of those words. Whether a member of the university staff is giving counsel in respect to the financial administration of a Canadian province, an American state, or a kingdom in the Balkans; or is studying the effects of the transition from agriculture to manufacture in Japan and in China; or offering skilled professional counsel in the erection of a great dam on the other side of the Rocky Mountains; or making meticulous study of the financial, economic, and social problems of post-war France; or reorganizing the educational system of a South American country or an African state; or offering professional service and advice as member of a duly appointed commission to serve the city, the state, or the nation; or directing the preparation and editing of a massive Encyclopaedia of the Social Sciences; or guiding and inspiring advanced students of art and architecture in Rome; or giving counsel and aid in the restoration of the Parthenon; or pointing out how the agricultural prosperity of Greece can be quickly and notably advanced; or offering scholarly interpretation of their religion and philosophy to the Parsees of India and to the people of Persia; or helping the Governments of Czechoslovakia, of Poland, and of various other countries to develop and strengthen their several systems of education; or guiding the deliberations of public bodies studying the important and vital matters of social insurance in this and other lands-it is always and everywhere university service. Columbia University interpenetrates the life of the nation and of the world in its every part and is glad indeed when its scholars and men of science are turned to, that the fruit of their knowledge and experience may be given to the service of that wider public in every land which lies far beyond the University's doors. Happy should be the generation which finds so rich a storehouse of learning and experience put gladly and willingly at its service.

It is hard to imagine anything more sad than the decline and fall of classical scholarship and classical teaching in

Must Science Go the Way of the Classics? American education, with the resultant paralysis in the development of our national understanding and our national cultivation. The changed conditions of life and of knowl-

edge being what they are, it would have been quite impossible under any circumstances, as well as unwise, for the ancient classics to maintain their one-time dominance of the best type of secondary school and college education. An appropriate readjustment of their place in the educational program would, however, have been something very different from the substantially complete downfall which has overtaken them. The Greek language and literature, Greek history, Greek eloquence, Greek philosophy and Greek institutional life, a knowledge of all of which is a sine qua non to an understanding of the intellectual and the spiritual life of today and to preparation for full participation in that life, have passed quite outside the range either of knowledge or of interest of the present generation of American students and their teachers. Latin, which bade fair to travel the same road, has been checked somewhat in its decline, but nevertheless its situation is parlous in the extreme.

The effects of all this are apparent on every hand. They reveal themselves in a lack of historical knowledge and perspective, in a lack of acquaintance with what is the very best and most fruitful of human experience, and in a lack of understanding of the significance of those literally colossal achievements of the mind and spirit which made ancient Greece and Rome immortal, no matter what fate may befall their history, their literature and their institutions as elements of an educational program. With all these have come also increasing carelessness of good manners and a sorry lowering of literary and artistic standards.

This decline and fall, it must be admitted, has been hastened and made certain by the attitude and influence of a host of those who were themselves teachers of the classics and who were engaged in the promotion of classical scholarship. They saw fit to supplant understanding of the ancient world with a myriad of minutiae of highly specialized learning, and to push far into the background the vitally important art of interpretation which is the essential element of real teaching.

Following the remarkable series of discoveries which began something more than a hundred years ago and which absorbed the attention of classical scholars in Germany, in France, more or less in England, and increasingly in the United States, the classical teacher too often left off the useful task of exposition and interpretation and became a highly specialized research worker in some narrowly bounded field of philology, of epigraphy or of archaeology. Into academic recesses such as these naturally no considerable company of students could possibly follow. Classical studies became identified in the public mind with this sort of minute and highly technical knowledge, and they rapidly lost their commanding and inspiring position as the seat and center of the study of humane letters. So it came about that in time classical studies in the schools and colleges of the United States were first asphyxiated, then embalmed, then incinerated, and finally placed in well-decorated funeral urns in the academic columbarium by those who should have been their glad and eager companions, exponents and interpreters. Minute technical studies had been substituted for literary and aesthetic appreciation and interpretation. When that happened the end was in sight. If there is ever again to be a genuine revival of classical learning-and nothing would more help and uplift American education and American life-it can only follow upon the influence of a group of scholars who are inspired by the ideals at which Greek and Roman art and letters aimed, and who are endowed with a capacity to interpret these in terms to be understood in the light of the world of today. Now and again there is a flash of lightning against this darkly clouded sky that comes from the direction of Oxford or Cambridge or Scotland or France or Italy, but it must be confessed that these moments of illumination are few and far between.

Strange as it may seem, the academic subjects whose rise contributed powerfully to pushing the ancient classics into the background appear now to be themselves in danger of coming under the influence of forces wholly similar to those which have destroyed the prestige of the ancient classics and any considerable knowledge of them. The natural and experimental sciences are of fascinating interest to every one who aspires to regard himself as an educated man. For some four hundred years the subject matter of these sciences has been steadily and rapidly expanding, and as scientific method has increased its power of penetration and multiplied its capacities the world about us has yielded one amazing secret after another until today the limits of scientific knowledge are measured only by the distance from the incredibly vast to the inconceivably small. Earlier and apparently well-established divisions of scientific territory are steadily disappearing. No one can longer tell where physics ends and chemistry begins, and now biophysics has come into existence to burrow through the wall which has separated physics from biology. Mathematics, the earliest tool and instrument of abstract thought, then long regarded as little more than a curious method of playing with the symbolic and the unreal, has reasserted itself at the hands of Einstein as the clue to the structure and fundamental laws of the physical universe. The whole round world has become the playground of the mind. Hypothesis quickly leaps into demonstration and demonstration then with lightning-like rapidity becomes the foundation of new and strange superstructures. To be ignorant of all this, or to be careless of it, is to put oneself outside the pale of that kind and wealth of understanding which are essential to liberal education.

Nevertheless, there are not wanting signs that teachers and research workers in the field of natural and experimental

science may yet do for their favorite knowledges precisely what the teachers of the ancient classics have done for an understanding of the life and literature of ancient Greece and Rome. Today if the university student wishes to make himself a specialist in any one of the various fields in which science presents itself to him, the largest ability, the widest knowledge and the most splendid laboratory equipment are at his service. He may quickly be drawn and pushed into the secret places of physics, of chemistry, of biology, of geology, of astronomy or even of mathematics; but how fares it with him who, not wishing to become a specialist in any of these fields, seeks for accurate and inspiring understanding of what all this scientific discovery and progress is about? Too often he asks for the bread of interpretation and is given only the stone of minute experimentation.

It would indeed be a cruel fate if the natural and experimental sciences, after their full half century of increasing educational dominance and with their quite unlimited educational possibilities, were now to be sent the way of the ancient classics, and should come to be generally used and known only in their applied and technical aspects, primarily for economic reasons and from motives of gain.

"O, what a fall was there, my countrymen!"

If the natural and experimental sciences are to escape this fate, those who teach and who represent them in the academic life of the world must be able to follow the example of a Huxley and a Tyndall, of a Helmholtz and a du Bois-Reymond, of a Pupin and a Millikan, of an Eddington and a Jeans, and those like-minded and like-spirited with them, who can and will interpret the facts, the findings, the methods and the lessons of the natural and experimental sciences to that multiplying host of intelligent men and women who seek a liberal education in the true sense of that term. Narrowly limited specialization between mounting walls of closely restricted interest, knowledge and skill will not do. That way lies the path to the academic graveyard.

At no time in history have the forces and resources of education been so productive as they are at this moment.

Production and Distribution in Education Expenditures upon education have reached colossal sums in almost every land, particularly in the United States. Physical provision in school buildings and grounds, in playing

fields, and in all the appanages of school, college and university life and work is quite endless in extent and variety. It is indeed a rare community in the United States where a schoolhouse or other building devoted to education is not the largest and most striking structure in the city, town or village. The capacity and cultivation of leaders in American education are greater now than they have ever previously been. When a group representing these men and women meets, as, for example, as Trustees of the Carnegie Foundation for the Advancement of Teaching or as the governing board of any one of the several associations of colleges and universities, they will quickly be recognized as the outstanding and worthy representatives of the nation's highest type of intelligence, and also the finest type of public servant. Into the hands of these men and women and their associates advanced study and research are pouring, year by year, month by month, and almost day by day, new richness of material for use in education, for understanding, for classification and for interpretation. Notwithstanding all this, the presentday results of the educational process and of long-time exposure to systematic educational influences are admitted to be anything but satisfying.

May it not be that the same lack of adjustment which is afflicting the economic life of the world is also afflicting education? May it not be that here, too, capacity for production has outrun our powers of distribution and of educational consumption, and that as a result we have among our vast armies of students whole regiments, brigades and divisions of the educationally unemployed? When the leaders of education are so competent, when the physical equipment for their work is so splendid, and when the material at their disposal is so rich and so ample, surely there can be no fault

to be found with production in education. The trouble, if trouble there be, must be looked for in imperfect distribution and in lack of power of consumption. Put bluntly, these are evidenced on the part of graduates of excellent schools and colleges by their bad and careless use of English, by their bad and careless manners, and by their bad and careless standards of taste and interest. Apparently much that is so richly poured out over and upon them runs to waste and fails to fertilize as it should those traits and powers and possessions which are the evidence of a liberal education.

There is food for thought in the analogy between the depression in the economic life of the world and the depression in the field of education. No doubt part of this failure in distribution and consumption, perhaps the controlling part, is traceable to the anti-philosophies and to the pseudopsychologies which are so eagerly proclaimed, even by those in high place, and which, when they have not caused entire misdirection of educational energy, have at least brought a vast amount of confusion and distress. Those who believe neither in mind nor in spirit may perhaps train animals, but they cannot possibly educate human beings. It seems difficult for many to understand that childhood is not an end in itself but merely a quickly developing stage in a definite process. The child is not only father of the man, but the child is the man in process of development. Were there no infancy there would be no need of education and little possibility of it. All this has been long-time demonstrated and ought to be perfectly familiar, but it is just now pushed aside by an odd transfiguration of childhood as if it were a static state and an end in itself.

Moreover, the individual is the unit and aim of all education. The individual precedes the social unit, and it is out of individuals and their willing or unwilling coöperation that the social unit is constituted. It is this truth which is the key to an understanding of the fact that all true education is education in freedom, in liberty. It is the mounting through discipline to self-discipline. It is the concerted effort of the elders to do what they can to make possible for those who

come after them the understanding, the exercise, and the enjoyment of freedom. Liberty is a hard and difficult lesson to learn. It involves the freedom to make mistakes and errors as well as to make successes. It involves meeting the temptation to do wrong as well as the opportunity to do right. Liberty has its dangers and its limitations, but so far as human history goes no form or type of despotism, whether individual or group or social, can for a moment be put in comparison with it.

Therefore, the pressing problem in present-day education, more especially in these United States, is to increase distribution and the power of consumption. It is to get hold and to make use of the vast amounts of material that have been inherited from the experience of a busy and notable past and that are enriched and added to by the activities of a busy and notable present.

That many are conscious of the deficiencies of present-day education is testified to by the widespread and increasingly popular movement for adult education. Those who take advantage of the opportunities and resources so freely and so wisely offered after school and college have been put behind forever, are not only endeavoring to keep pace with new knowledge, new thought, and new interpretation, but they are in many cases consciously endeavoring to fill gaps and to repair damage in the work of the schools and the colleges themselves. Therefore, the movement for adult education is both an invitation and a warning. It is an invitation to remember that much remains to be done when school and college days are over, and it is a warning that much that school and college have attempted to do has not been well or competently done.

Columbia University in its every part keeps before it the individual student as an end in himself and training for freedom as its aim. This would not be possible unless the university teacher were himself schooled in freedom and addicted to freedom. He too must have the opportunity to make mistakes as well as to score successes. Since the days when at Göttingen *Lehrfreiheit* began to establish itself in

the life of modern universities, it has had a hard road to travel. Even today it is the subject of frequent criticism, of abuse, and of querulous complaint. But there can be no training for freedom on the part of those who are not themselves free.

The Dean of Teachers College, in his very striking report for the past year, discusses with illuminating argument and illustration the influence upon education of the industrial era in which the world so largely lives, and he examines the implications of the conscious effort to use education to remake the world. He warns vigorously against subordinating the individual to the machine, and points out with clearness and conviction how the individual can be adapted to a changed world without being subordinated to its mechanical aspects and influences, however dominant these may appear to be.

The report of the Dean of Columbia College offers much food for reflection. The changes which have come over the American college during the past half century have altered it almost beyond recognition.

This is particularly true in the case of the

university college, but it applies to the separate college as well. Not only has the program of study been revolutionized and the methods of teaching changed, but new points of view, new intellectual, social and economic influences, and new institutional ambitions and needs, have brought about conditions which no college teacher or college student of a half century ago could possibly have foreseen. The intermingling of training in the essential elements of a liberal education with the studies chosen in preparation for the practical affairs of life has brought about odd and sometimes unfortunate results. Where the attempt to substitute vocational preparation for general liberal training has been successful the essentials of an education have been denied to an increasing number of youth, with the deplorable results that confront us on every hand. Moreover, with the growth of the college population and the nation-wide striving on the part of youth of every sort and kind to enter college, the pressure upon physical equipment, financial resources and teaching staff has become

well-nigh unbearable. These situations have been met by different institutions in different ways. The Faculty of Columbia College has made the tests for admission so severe and so searching that hundreds of applicants for admission to the freshman class, many of whom are quite worthy to receive college training, are turned each autumn from the College door. Even so, the pressure on the libraries, the study rooms, and the administrative offices of the College has reached the breaking point, and prompt and considerable addition to the physical equipment of Columbia College is one of the University's pressing needs.

The Faculty of Columbia College has long set its face sternly against what is sometimes called mass production in education and has provided, both in precept and by practice, for the study and treatment of each student as an individual entitled to be weighed on his own merits and guided and counselled in accordance with his own background, his own capacity, and his own ambitions. Not only the program of study, but the College administration day by day is shaped to these ends.

The future of the university college, provided it can keep its independent place in the university organization and be neither swallowed up nor overwhelmed by the neighboring professional and vocational studies and preparation, is reasonably secure. It will, it is hoped, continue to offer the essentials of a liberal education, through a three or a four year course, to those who enter their names upon its rolls. It will also make provision for those who, for one reason or another, are compelled to enter early upon a professional or vocational career, to have the full benefit of not less than two, preferably three, well-planned years of liberal studies generously pursued and broadly interpreted. This is a permanent service to the nation's system of higher education which the college, and the college alone, is in position to render.

In the case of the separate college, the development may conceivably be parallel yet different. The separate college will be under constant pressure to imitate and to emulate, so far as its resources and its opportunities go, the attractiveness and the effectiveness of the university college, but often it will not be able to succeed in this. On the other hand, where the separate college has a long historic background and fine physical equipment, together with adequate endowment, it may look forward perhaps to becoming the Eton, the Harrow, or the Rugby of American higher education and in time to be joined as such by those old and well-endowed academies which are constantly reaching up out of the field of what was secondary education into that which was once across the line which separated secondary from higher education.

Still another tendency, signs of which are already clearly in evidence, will begin to exercise no small influence on the separate college. That is the tendency to profit by becoming a member of the educational system of a neighboring university, without thereby losing or in any way impairing the separateness, the independence, or the corporate responsibility of the separate college itself. The advantages of such association are obvious. All the authority and influence of a powerful university and its great body of scholars will be exerted to support proper standards of admission and graduation and to stimulate and fertilize, by many-sided contacts, the intellectual life and labors of the separate college staff. It is of the essence of a system such as this that the separate college remain separate and financially independent and that it enter the educational system of a neighboring university not as a possession or an outlying province, but as an independent and cooperating educational state.

The pressure for admission to Columbia University in candidacy for a degree in some one of its parts has long since become so severe as to be most embarrassing. Between five thousand and six thousand applicants admission must be turned away each year. Students who are denied admission are very apt to fancy that this denial is based upon some consideration other than that which has to do with their relative fitness to take advantage of what the University has to offer. It has always been the policy of Columbia to refuse admission to applicants in excess

of the number which could be adequately and properly cared for by the university teaching staff and with the libraries, laboratories, and lecture rooms which were provided. Columbia College prides itself on its devotion to the interest of the individual student, to the study of his peculiar background, needs, and ambitions, and to its capacity to care for all these by counsel and direction. In the Graduate Faculties personal contact between advanced students and their chosen academic guides and teachers is quickly established and well maintained. No one of these important ends could be achieved if the University were to throw its doors open to all applicants who could bring prima facie evidence of their fitness to enter. Under no circumstances can secondary school graduation be accepted by itself as qualifying for admission to College, and the time has now come when the mere possession of a baccalaureate degree is incomplete and unsatisfactory evidence of capacity to make best use of the graduate and professional studies and direction which the University offers.

It is these facts which have led to the steady evolution of a process of selection by which the Director of Admissions and his associates do their best to make it certain that there shall be chosen from the armies of annual applicants for admission only those who, from whatever part of the world or from whatever station in life, can bring most convincing evidence of their ability to profit by what the University is ready to do for them.

It would be an interesting inquiry to follow the thousands who are each year denied admission on Morningside Heights and at the Medical Center, in order to ascertain what becomes of them. Do they enter some other American institution of higher learning, or do they go abroad for study, or do they abandon a farther academic period of residence and turn directly to the practical affairs of life? The Director of Admissions has very little information on any of these subjects, but occasionally comes upon facts which throw an illuminating light upon this whole matter. For example, one applicant for admission to the College of Physicians and Surgeons

who was not received applied for and obtained from the Registrar no fewer than forty-three transcripts of his previous personal, school, and college records, with the obvious intention of submitting these to forty-three different medical schools. Admission to a medical school of high rank has become a matter of so great difficulty that for some years past, American students who have not been admitted to a medical school of the first class have turned to schools in other lands, including Scotland and New Zealand. So marked has this tendency become in the case of the Scottish universities that these institutions in turn have been obliged to fix a quota of American students to limit the admission of these applicants to their medical schools.

The College of Physicians and Surgeons had upon its books when these were closed on May 1, 1930, one thousand applicants for admission to the first year class. Of this number one hundred and fifteen were admitted. The School of Dental and Oral Surgery admitted about one hundred and fifty students and turned away a somewhat larger number. The Schools of Architecture, Business, Engineering, Journalism, and Library Service each rejected many applicants whose records were formally in order. For the five schools the number so rejected aggregated more than two hundred and fifty. The School of Law admitted about two hundred and forty students, after definitely rejecting one hundred and fifty and discouraging as many more who, finding on preliminary inquiry that there was no prospect of admission, did not complete their applications. For admission to Columbia College about fifteen hundred young men filed formal application, submitted their records, and took the prescribed tests. In addition, not fewer than one thousand were discouraged before taking all this time and trouble. As a result the College admitted five hundred and twenty-five students to its freshman class. Still more significant is the statement of the Director of Admissions that if the applicants of 1930 were only of the same average quality as those of, say, fifteen years ago, it would have required a field of some seven thousand applicants for admission to the freshman class to produce

the class admitted of five hundred and twenty-five. During these past fifteen years the standards of admission have been so markedly raised and the knowledge that this has taken place has become so general, that thousands of young men who would have applied for admission to Columbia College then have no thought of doing so now. Columbia College at the present time has about the same number of students enrolled as Dartmouth College or Princeton or Yale. The Law School is but little more than one-third the size of the Law School of Harvard University, and much smaller than the Law Schools of New York University or of Fordham. The College of Physicians and Surgeons enrolls fewer students than are registered in medicine at Harvard, at Illinois, at Michigan, at Minnesota, at Northwestern or at Pennsylvania Universities. These limited enrollments taken in connection with an exceptionally large teaching staff make it possible for Columbia to insist upon and to secure the largest possible attention to the needs and characteristics of the individual student.

It is unfortunate that institutions which are in no sense colleges of liberal arts should constantly seek to take the name college, with a view, as they think, to improving their own academic status and prestige and to attracting students who are really not expected to pursue a college course at all, but one which is professional or technical in its organization, its methods, and its aim. The multiplication of junior colleges and the development of endowed institutions of a technical and professional character, which either rest upon the secondary school or are themselves in part of secondary school character, are among the greatest needs of the nation's educational system. The difficulty is that when such schools come into existence, those who direct them become ambitious to turn them into something other than they were originally intended to be, and thus in time the very purpose of their foundation is destroyed and the nation's educational problem is still farther complicated.

It would be an excellent and helpful thing if some official educational authority such as the University of the State of New York might undertake the systematic study of problems like these, ascertaining what becomes of the young men and the young women who are denied admission to the college or university of their choice, and how far effective provision is making throughout the country for those students who, having time and opportunity to pursue technical or professional studies for a year or two, are desirous of undertaking them.

The relation of the University authorities to athletics, and in particular to intercollegiate athletic contests, was first made definite and specific by action of the University Council taken on November 19, 1901, authorizing the President to revise the mode of control of student athletic organizations which had theretofore prevailed. Under the system then adopted and reported to the University Council on April 21, 1903, the University became responsible for (I) the physical fitness of the student who desired to participate in collegiate athletics, (2) his scholarship, and (3) his absence from the University to participate in intercollegiate contests. On the other hand, all other questions relating to a student's general eligibility to participate in athletic contests were entrusted to a committee appointed by the President and made up of representatives of the alumni and student body. This committee reported a series of such rules which the University Council adopted by unanimous vote on April 21, 1903. Some slight changes in these rules, none of which affected the principles involved, were approved by the University Council on May 29, 1903, on October 17, 1905, and on May 15, 1906. In the Annual Report of 1904 (pp. 28-35), the policy of the University toward athletic sports in general and intercollegiate contests in particular was discussed at some length. For the reasons set out in full in the Annual Report for 1906 (pp. 41-48), and on the unanimous report of the University Committee on Student Organizations, the game of football as then played was prohibited by the University Council on December 19, 1905, after it had heard at length and in person from representatives of the alumni and the existing athletic organizations. Ten years later, on April 20, 1915, the University Council, acting on the recommendation of the Faculty of Columbia College and upon the petition of the University Committee on Student Organizations as well as various bodies of alumni and students who were keenly interested, authorized the resumption of football for a trial period of five years, at the end of which time, the experience having proved satisfactory, the arrangements now in force were authorized by the Council.

Painful and disagreeable as was the action taken by the University Council in 1905, there can now be no doubt that that action contributed greatly to saving and improving a form of athletic contest which makes a powerful appeal to students, to alumni, and to the general public. That fact is now admitted by many of those who most vigorously criticized the action of the Council at the time it was taken.

The abuses of intercollegiate athletics are many and various and it is exceedingly difficult to bring about their remedy. So obsessed are many alumni with a passion for victory at all costs that they are quite willing to shut their eves to very discreditable happenings which reflect sadly upon their own colleges in a way which no series of victories on the athletic field can possibly overcome. The enormous cost of these intercollegiate football contests and the still more enormous revenues which are produced by them, if a team or a particular institution gains a reputation for success, are a constant and justifiable source of academic as well as public criticism. These would be appropriate enough, no doubt, if the contestants were professional athletes as in England, for example, but they are certainly unbecoming when the contestants are chosen from groups of young Americans whose primary duty and opportunity at the moment are to prepare themselves adequately for life and for living.

If all colleges and universities which participate in intercollegiate athletic contests would consistently restrict themselves to participants of undoubted academic qualifications and standing and without any present financial inducement or assistance to participate in intercollegiate athletics, the situation would be comparatively simple.

Unfortunately, however, this is not the case. Those institutions whose administrative authorities stand up straight, and even lean over backwards, in the matter of conditions of admission and standards of scholarship in college, are punished on the playing field when those who represent them come in contest with athletic teams constituted of very different material from theirs. The public knows little or nothing of all this and assumes that a student is everywhere a student, that a college athletic team is everywhere a college athletic team, and that there are no elements of difference between the contestants save skill. The true situation, however, is often something quite different, and the institution which insists upon maintaining its academic standards at all costs may find itself heavily handicapped each autumn when the football season opens and remain handicapped until that season ends, so far, at least, as athletic repute and income from athletic contests are concerned.

What is the remedy? Athletics are far too important to be permitted to pass out of undergraduate life. Intercollegiate athletic contests, under proper conditions and on academic playing fields, have a place of their own that is both interesting and important. Is there no way by which effective academic control can be exercised through institutional coöperation to bring to an end the obvious abuses that now threaten, as they did twenty-five years ago, the whole scheme of intercollegiate athletics? Perhaps what is needed is an academic Athletic League of Nations to take jurisdiction over this entire field of endeavor and to preserve what is excellent while shutting out what is unbecoming and unworthy.

Here at Columbia serious and prolonged study has been given to all these questions, particularly during the three years last past. On November 7, 1927, a Special Committee of five Trustees earlier appointed "to study intensively and thoroughly the entire system of the organization of athletics at Columbia and to report to the Trustees . . . their recommendations as to (a) a permanent system of organization for the administration and control of athletic sports

and intercollegiate activities and (b) a plan of financial administration that will relieve the general income of the University from charges on this account," submitted a most important report embodying the conclusions unanimously reached upon certain controlling propositions of fact or principle. This Committee reported that intramural and intercollegiate athletic contests form a proper and recognized part of modern collegiate activities; that in no American college or university are the current expenses of the conduct of such activities provided for out of the corporate funds of the institution; that the corporation and its Trustees should not take over the responsibility of financing or administering such activities; that both in theory and practice the sound division of functions between the Trustees on the one hand and the alumni and students on the other is (a) that the University should provide and maintain at its expense the permanent plant and facilities for athletics, and (b) that the students and alumni should provide at their expense for the training, coaching, conditioning and equipping of all teams, and in fact for the current expenses of all athletic activities. This report was adopted by the Trustees and stands as the latest official pronouncement of University policy in regard to this subject.

Subsequently, on December 2, 1929, a second Committee of the Trustees, one of whose members had been a member of the earlier Committee, submitted a report in which the belief was expressed that the University cannot escape the final responsibility for the conduct of athletic activities and contests, and making recommendations accordingly. Upon this second report no action has been taken, although much informal discussion of the subject has gone on and is still going on throughout the University.

In fairness to the student body and to the alumni interested in athletics it should be said that both have cordially supported the appropriate University and College authorities in insisting upon the strictest possible maintenance of academic standards on the part of all those who look forward to participation in intercollegiate athletics. A different policy would doubtless greatly increase the gate receipts from intercollegiate athletic contests, but there are some things more important than gate receipts.

Perhaps the one satisfactory and permanent solution of these problems is that athletic sports, being a well-recognized part of undergraduate life and undergraduate training, should be suitably and adequately endowed by the alumni. Were this done, it would then be possible at one stroke to bring to an end the importance and influence of gate receipts, and to put baseball and football, for example, on the same excellent plane that rowing has long occupied. If there were no gate receipts to be sought and none of the glory that produces gate receipts to be gained, it would then appear possible so to organize the administration and control of athletic sports and intercollegiate athletic contests as to secure the continued interest and cooperation not only of the undergraduate students but of the great body of alumni and to gain from these sports and contests a maximum of benefit. Until something of this sort is done Columbia must remain one of those colleges which pays the penalty, if penalty it be, of insisting upon the primacy of intellectual ideals and intellectual accomplishment.

The university study of business organization, business principles and business methods stands in the same relation to the study of economics, sociology and Business as law that the university study of engineer-University Subject ing occupies in relation to mathematical and physical science. It profits by a separate organization and by an independent university consciousness just as does engineering and for like reasons. The active and most valuable researches carried on by members of the Faculty of the School of Business, and the constant demand for the service of these scholars as expert advisers in some form or department of official public service, indicate clearly in what estimate the work of the School of Business is held by the public. standards of admission to the work of the School and the severe program of study which its students follow are wholly admirable. Its constituency and its influence are not only national but international, and it has demonstrated that university methods, university standards and university ideals can constantly conquer new fields of human activity that were at one time supposed to be far beyond the reach of university interest and university influence. If present fortunate tendencies continue, the time will come when all serious professions will be learned professions, and it will no longer be possible to restrict that term to law, medicine and theology, which had their academic beginnings long ago in the Middle Ages.

The pride which the University has in the Medical Center and the steadily increasing effectiveness of its work may not

be permitted to hide the fact that what has Next Steps there been accomplished is but a beginning in Medicine and not an end. Medical teaching has been revolutionized within a short generation, and long-standing programs of study and methods of work have been completely displaced. With the steady advance of the spirit of what is known as scientific medicine there may have been too great a tendency to overlook and depreciate the value of the oldfashioned so-called family physician or general practitioner of medicine. His qualifications were, and are, not only scientific knowledge, but those which come from temperament, from human insight and understanding, from kindness of heart, and from long experience with the ill and the suffering. No matter how strong may be the desire for specialized knowledge in the field of medicine and surgery, there will always be demand, and powerful demand, for the welltrained, wise, kindly, and experienced general practitioner. There are some fields in which instinct outruns knowledge, and dealing with human nature is one of these.

Moreover, only the smallest beginning has yet been made in the proper organization and development of graduate studies in medicine. So far as that subject is concerned, the medical schools are today about where the colleges were before the university development of fifty years ago. There is need for the quick organization and wise administration of graduate studies in medicine for a variety of quite different purposes and students. There will be an increasing number

of those young men and women scientifically inclined who, having completed their professional course in medicine, desire not so much to practice that art as to carry on laboratory or clinical studies in some special field of inquiry. Then there will be those who after being graduated in medicine wish to look forward to practicing not general internal medicine but some medical specialty. For such students, one, two, or even three years of graduate work must be prepared and directed in order that they may be guided to the beginnings of their chosen career as specialists in medicine. Then again there is a third and highly important group composed of those physicians in active practice, many of them at a considerable distance from the great centers of medical teaching and research, who after a number of years desire to come to a medical school or hospital for a longer or a shorter period in order to observe and to learn some of the newer methods of medical treatment which have been developed since their own student days. Throughout the country there are thousands of such men and women who, if opportunity were afforded. would gladly come to New York to pursue for six weeks or six months or a longer period highly specialized and intensive courses of graduate study in medical school or in hospital.

All this work cannot be done, and should not be attempted, at the Medical Center alone. There are admirable hospitals whose own medical services would be improved and stimulated by contact with advanced and graduate students of any one of these types, and such hospitals may wisely be brought into relationship with the University's educational system and made a part thereof.

There is at least one more opportunity for medical progress which is of highest importance. In the sparsely settled parts of the country the highest and best type of medical service is difficult to obtain. Men and women there suffer and die without that care which the medical profession would gladly give were the patient within reach of a thoroughly trained practitioner or a thoroughly modern and well-equipped hospital. It would be becoming for the University to find ways and means to establish at some suitable point in the rural districts

of the state of New York a central hospital and medical service, and from this as a center, to provide, by a staff of young physicians and internes, for the medical care and supervision of the population within a radius of, say, thirty or forty miles. A successful and convincing experiment of this kind would be a new and prodigious public service, for once the demonstration had been made, benefactors and communities in all parts of the country would quickly multiply it by imitation.

Modern medicine is only at the beginning of its public service in the United States. Health inspection, personal and public hygiene, preventive medicine, organized graduate studies, and effective medical service for thinly settled communities, are all problems which invite early solution and call for new resources as well as new ideas.

The admirable movement, in which the School of Dental and Oral Surgery is an outstanding leader, to raise the plane of the profession of dentistry, to strengthen Dentistry and and broaden both the general education and Medicine the professional training required of those who look forward to engaging in this profession, as well as to integrate dentistry with medicine as rapidly as may be and to put dentistry in the position which it should occupy as a special field of medicine and surgery, goes forward apace. Where vested interests, personal or institutional, exist and are interfered with by the success of this policy, complaints and criticism must be expected, but they need not be allowed to trouble those who are responsible for the forward movement or to weaken either their energies or their faith. The progress which has been made since the School of Dental and Oral Surgery was incorporated as a part of the Medical Center is indeed remarkable, and yet it is only a beginning in what may confidently be looked forward to as a long advance in professional education and in public service.

Even the most casual observer will not have failed to notice the increasing interest, the world over, in what may be called preventive dentistry, and the rapidly increasing provision made in almost every land for the examination and care of the teeth of the great mass of the population. In Italy today these public dental clinics are to be seen in every community and at several points in every large city. Similar movements are under way in Germany, in France, in Great Britain, and, with the generous support of benefactors, at various points in the United States. The interdependence of dentistry and general medicine is now understood as never before, and the coöperation between the general medical practitioner and the dentist is increasingly frequent and intimate. Were the School of Dental and Oral Surgery adequately endowed it could make most rapid progress in carrying to fruition the wise and helpful plans which the Dean and Faculty have entered upon with the cordial approval and coöperation of the Dean and Faculty of the College of Physicians and Surgeons.

Few things have given greater satisfaction in the recent history of the University, or have contributed more to the comfort and satisfaction of its members, than

the highly effective operation of the University medical service under the direction of Dr. McCastline. This service, introduced in 1912

University Medical Service

in a small way, has steadily grown in extent and in importance until now it has become not only a welcome part of the University's life and activity, but an indispensable part. The Medical Officer and his staff of physicians and nurses are solicitous not so much to cure disease and suffering, which is the task of the physician and the hospital, as to forestall and prevent these. Frequent medical examinations, frequent consultations on the slightest approach of discomfort or pain, and wise counsel as to work, diet and exercise, all operate vastly to increase the effectiveness as well as the satisfaction of the student body and the teaching and administrative staff. During the year under review there were received in the University Medical Office no fewer than 6,317 patients, to whom 26,319 treatments were given. In addition, there were consultations for approximately 8,561 physical or mental conditions. At the infirmaries in Johnson Hall and John Jay Hall 425 and 284 bed patients respectively were received, each for an average length of treatment of something over four days.

The time has come when the University Medical Office should be given the well-designed and properly equipped building for which the University Medical Officer asks in his report. Otherwise, this indispensable service must be crippled and halted at the very moment when it is most in demand and most highly appreciated. The records of the University Medical Office are already of great value, and as they are continued and extended will increase in importance as they show the relation between health and scholarship and how that relationship can be improved and strengthened. In the report of the University Medical Officer, which should be carefully read, are to be found not only vitally important recommendations for the improvement of the service, but an array of facts and a series of reflections and interpretations that are valuable in the extreme.

The University puts the care and skill of the University Medical Officer and his admirable staff at the service of the teaching and administrative staff and of the student body without cost, and in so doing renders an educational service of the largest importance. If serious illness befalls, of course the patient must have recourse to a private physician or to a hospital for suitable treatment; but in the field of preventive medicine and personal hygiene, and for all the hundred and one minor but not disabling ills which afflict human beings, the University medical service is prompt, devoted and most effective.

Urgent needs for additional physical equipment in order to do properly and well the work of the moment have already been far too long postponed. While from one point of view the time is not auspicious to ask for or to secure funds with which to erect new buildings, yet, on the other hand, money so given and quickly given would notably aid in relieving the unemployment which now presents so serious an economic and social problem.

Before the University Council on February 15, 1921, it was pointed out that the weakest point in our University work at that moment was the lack of sufficient equipment for instruction and research, particularly in those fields

where extensive laboratories were required. Fortunately the facts then stated and the appeal then made were not without their results. Since that time the University has been provided with thoroughly modern and well-equipped laboratories for research in physics, in chemistry, in anthropology, in botany, in geology, and in zoölogy. The School of Business building with its most useful auditorium has been erected. Kent Hall has been turned over to the undivided use of the School of Law, and the Departments of Economics, History, and Social Science have been given new and satisfactory accommodations in Fayerweather Hall. The greatly needed Stadium was provided by the princely gift of Mr. George F. Baker. Of the needs that nearly ten years ago were described as pressing, there still remain the completion of University Hall, the provision of a new library building with sufficient studies and consultation rooms, a new and thoroughly modern gymnasium, and an auditorium of a size sufficient to care for the University's needs on important public and ceremonial occasions.

University Hall has remained more than thirty years in its present unfinished state. It has now become a problem not alone of university policy but of engineering skill and of cost, as to whether it can best be completed as originally designed by the architects, or whether it can better be completed in a manner that would enable it to satisfy some one of the other needs which are crying aloud for space. These problems have been under careful study for more than a year past, and it is greatly hoped that some satisfactory solution may be found in the near future.

Columbia College needs an additional building as large as Hamilton Hall. The Department of English and Comparative Literature with its very large enrollment of graduate students asks for a building specially adapted to its uses, which would contain a small theater for the presentation of dramatic work under university auspices. The University Medical Officer points out the need for either a building or a considerable portion of a building for the use of the university medical service and for the enlargement of the infirmaries.

The greatly needed laboratory for research in chemical engineering has not yet been built. The Faculty of Engineering has long had excellent and well-prepared plans for testing laboratories at a distance from Morningside Heights where land would be cheaper and the laboratories themselves directly accessible both by water and by rail. There is need of another residence hall designed primarily for families and unmarried members of the academic staff. Such a building would be filled the day it was opened.

It must be borne in mind that no part of this building program contemplates any work which the University is not now doing. It looks only to making sufficient and proper provision for work long in progress. To begin upon it would require large sums of money. To carry it to completion would cost many millions of dollars. The benefactors who shall make possible the planning and building of these many and important structures will not only multiply the strength and power of Columbia University but offer employment to hundreds, perhaps thousands, of those who are now desperately looking for work.

As shown in the Report of the Treasurer, the income of the University Corporation (omitting Barnard College, Teachers College, the College of Pharmacy and University St. Stephen's College) from all sources for the Budget year ending June 30, 1930, was \$11,307,427.36, an increase over the income of the previous year of \$1,375,420.10. It is interesting to observe that of this amount no less than \$5,236,785.44, or approximately 46%, was received from fees of students, while \$1,500,708.16, or a little more than 13%, was received from allied corporations to be immediately disbursed for and on behalf of the work for which those allied corporations are responsible. The total expenses of the year, exclusive of provision for the Redemption Fund and the Amortization of the Loan of 1925, were \$11,504,371.11, the excess of expenses over income being \$196,943.75 before making any provision for the Redemption Fund or the Amortization of the Loan of 1925. When there is added the amount transferred to the Redemption Fund for the retirement of the 4 per cent mortgage bonds (\$100,000) and the amount transferred for the Amortization of the Loan of 1925 (\$47,500), or \$147,500 in all, the deficit for the year after including all charges is \$344,443.75.

Attention should again be called to the weight of the burden which the Trustees are obliged to bear because of the corporate debt. The total charges for the year on account of the debt service amounted to \$567,179.89.

The appropriations as contained in the budget adopted by the Trustees on April 7, 1930, for the work of this corporation alone during the year now in progress, together with such amendments as were made previous to June 30 last, are as follows:

For educational administration and instruction \$9,403,542.05
For care of buildings and grounds 1,065,333.82
For the Library
For business administration 196,972.00
For annuities
For insurance on academic property
For interest on the corporate debt
For Schedule J, under direction of the President 290,000.00
For payment on account of Redemption Fund, due June 30,
1931
For amortization of the loan of 1925
Making in all the sum of \$12,179,327.93
which sum is made chargeable as follows:
T 11
To the income of the corporation
To the income from special endowments 1,160,498.06
To gifts
To moneys to be paid by the Carnegie Foundation 132,605.00
To moneys to be paid by the Presbyterian Hospital 35,000.00
To moneys to be paid by Barnard College 446,740.00
To moneys to be paid by Teachers College 868,070.00
To moneys to be paid by St. Stephen's College 78,050.00
To money's to be paid by St. Stephen's conege

\$12,179,327.93

These appropriations, compared with those for the preceding year, show an increase of \$548,296.09, and as the income

for the current year is estimated at \$11,797,642.50, the Trustees again face a heavy deficit in income and expense account estimated at \$381,685.43.

As stated in the last Annual Report, a new period of corporate financing may be said to have begun with the releasing of the Upper Estate to Mr. Rockefeller in 1928. Therefore the summary of the result of the financial operations of the University for each year since 1907–1908 is no longer included in this report.

The gifts and bequests received during the year are set out in detail in the Treasurer's Report (pp. 161-171). Despite the severe economic depression, these amounted to no less than \$1,584,199.90, divided as follows:

A. Gifts to Capital:	
I. General endowment	
2. Special endowments	
3. Buildings and grounds 872.78	
	\$822,309.27
B. Gifts to Income:	
1. For general purposes \$52,100.00	
2. For specific purposes	761,890.63
	-
	\$7 581 700 00

The principal additions to general endowment were:

From the Estate of Amos F. Eno, \$370,054.70;

From the Alumni Fund Committee, for the Permanent Alumni Fund, \$13,500.

The principal additions to special endowments were:

From an anonymous donor, to establish the Stanwood Cockey Lodge Foundation, \$90,281.25;

From the Estate of Frederick Bertuch, to establish the Bertuch Fund for needy students, \$63,102.30;

From the Estate of Charlotte de Sers, to establish the Robert Johnston Niven Fund, \$200,000.

The Alumni Fund, in addition to \$13,500 noted above, produced the very considerable sum of \$60,494.84, distributed among special endowments, buildings and grounds, and the current expenses of the University.

For particular research undertakings the significant gifts were:

From an anonymous donor, for the Institute of Cancer Research, \$20,000;

From an anonymous donor, for the Special Tuberculosis Fund, \$11,924;

From an anonymous donor, for the establishment and maintenance of a Bureau for research in statistics, \$6000;

From the American Manufacturers of Toilet Articles, for research in the chemistry of perfumes, \$7,500;

From the Borden Company, for research in food chemistry and nutrition, \$18,000;

From the Bureau of Social Hygiene, for the study of criminology, \$14,117.60;

From the Chemical Foundation, for research work in biological chemistry, \$20,000, and for research work in the Department of Bacteriology, \$4,315;

From the Commonwealth Fund, for research in the School of Dental and Oral Surgery, \$17,800;

From Francis P. Garvan, for the Special Tuberculosis Fund, \$7,000;

From the General Education Board, for the work of the Council for Research in the Humanities, \$37,500;

From the International Committee, for the Milbank Infantile Paralysis Fund, \$7,500;

From Mr. and Mrs. Miner S. Keller, for the work of the Institute of Cancer Research, \$5,000;

From Bernard K. Marcus, for research work in the Department of Anthropology, \$5,000;

From Dr. William J. Matheson, for research work in the study of encephalitis, \$2,000;

From the National Research Council, for research work in the Department of Anatomy, \$4,713;

From the National Tuberculosis Association, for research work in tuberculosis, \$5,074.71;

From the New York Milk Conference Board, for research work in the DeLamar Institute of Public Health, \$8,000;

From the Rockefeller Foundation, for research in Medical Mycology, \$13,000; for practical research and field work at Greenwich House, \$7,500; for social science research, \$71,300; for the study of compensation for automobile accidents, \$30,000; and for the study of familial law, \$7,665.04;

From the Social Science Research Council, for various undertakings, \$24,710.57;

From the late William Boyce Thompson, for the Departments of Civil Engineering and Mining and Metallurgy, \$109,250;

From the Walker-Gordon Laboratory Company, for research in food chemistry and nutrition, \$12,500.

The total gifts in money received during the year by the five corporations included in the educational system of the University are classified as follows:

Purpose	Columbia University	Barnard College	Teachers College	College of Pharmacy	St. Stephen's College	Total
A. Gifts to Capi- tal: 1. General en-						
dowment 2. Special en-	\$388,781.33	\$1,000.00		\$410.00	\$1,315.75	\$391,507.08
dowments	432,655.16	46,821.18	\$2,024,988.70	400.00		2,504,865.04
3. Buildingsand grounds .	872.78		12,000.00		29,955.93	42,828.71
B. Gifts to Income:						
poses	52,100.00	25.00			53,767.05	105,892.03
poses	709,790.63	20,920.17	449,530.15		17,657.83	1,197,898.78
	\$1,584,199.90	\$68,766.35	\$2,486,518.85	\$810.00	\$102,696.56	\$4,242,991.66

The number, variety, and amount of these gifts annually made to the University in some one of its parts are in highest degree significant. It should always be borne in mind, however, that the severe burden which the Trustees must carry in order that the work of the University may continue to go forward on its high plane of excellence, is only lightened when new funds are provided by gifts which are applicable to general university purposes. Gifts for special ends, desirable and welcome as they are, leave the task of meeting the University's daily obligations precisely where it was before such gifts were made.

The following statement, which is presented annually, records the gifts in money alone made since 1890 to the several corporations included in the University:

1890-1901	\$5,459,902.82
1901-1902	
1902-1903	1,721,895.06
1903-1904	1,783,138.18
1904-1905	1,960,247.87
1905-1906	1,299,909.78
1906-1907	1,360,590.80
1907-1908	1,077,933.87
1908-1909	974,637.07
1909-1910	2,357,979.30
1910-1911	2,932,655.79 16,551,568.74
1911-1912	\$2,242,417.58
1912-1913	1,605,935.33
1913-1914	1,494,648.61
1914–1915	814,111.69
1915-1916	2,287,144.91
1916–1917	1,634,578.78
1917-1918	882,267.76
1918–1919	3,455,356.60
1919-1920	3,724,181.14
1920-1921	2,190,289.85 20,330,932.25
1921-1922	\$3,270,380.76
1922-1923	12,728,021.59
1923-1924	2,375,691.92
1924-1925	2,097,108.25
1925-1926	5,276,777.11
1926-1927	3,498,380.20
1927-1928	5,546,667.61
1928-1929	3,617,928.92
1929-1930	4,242,991.66 \$42,653,948.02
Total	\$84,996,351.83

In the following summary financial statement given each year, the land, buildings and equipment used for educational

Property and Endowment

purposes are entered at cost; the Upper and Lower Estates at their assessed valuations, and all other property at book values.

	Resources June 30, 1930	Budget Appropriations 1929–1930	Income and Expense Account 1929–1930		
Columbia University Barnard College Teachers College College of Pharmacy St. Stephen's College	\$109,075,383.04 8,734,892.60 17,413,424.52 919,964.79 1,576,358.84	493,375·57 ¹ 3,657,669.37 ² 218,784.00	+ 120,974.74 + 76,288.52		
	\$137,720,023.79	\$16,237,357.88			

The following officers of the University have died since the publication of the last Annual Report:

On December 9, 1929, Henry Woodward Sackett, A.B., Lecturer in Journalism and member of the Administrative Board of the School of Journalism, in the seventy-seventh year of his age.

Deaths of University Officers On January I, 1930, Clarence Floyd Haviland, M. D., Clinical Professor of Psychiatry, in the fifty-fifth year of his age.

On January 20, 1930, Lawrence Kinsman McCafferty, M.D., Instructor in Dermatology, in the fortieth year of his age.

On January 30, 1930, Lea McIlvaine Luquer, Ph.D., Associate Professor of Mineralogy retired, in the sixty-sixth year of his age.

On February 12, 1930, Adolphe Cohn, A.M., LL.B., Professor of the Romance Languages and Literatures retired, in the seventy-ninth year of his age.

On February 13, 1930, Vida P. Sherwood, M.D., Assistant in Dermatology, in the thirty-fifth year of her age.

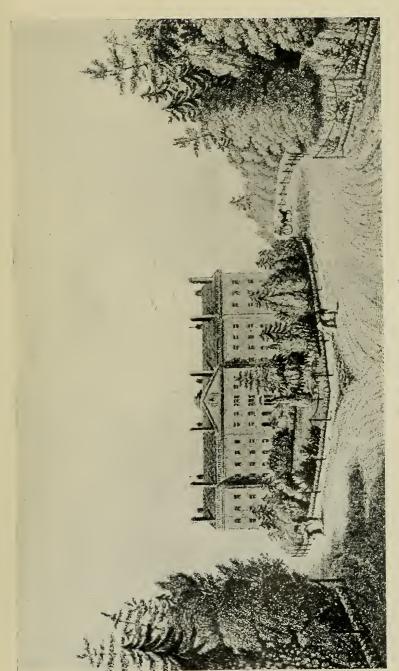
On March 5, 1930, Christine Ladd-Franklin, Ph.D., LL.D., Lecturer in Philosophy, in the eighty-third year of her age.

On March 11, 1930, Edward F. Albee, a Trustee of St. Stephen's College, in the seventy-third year of his age.

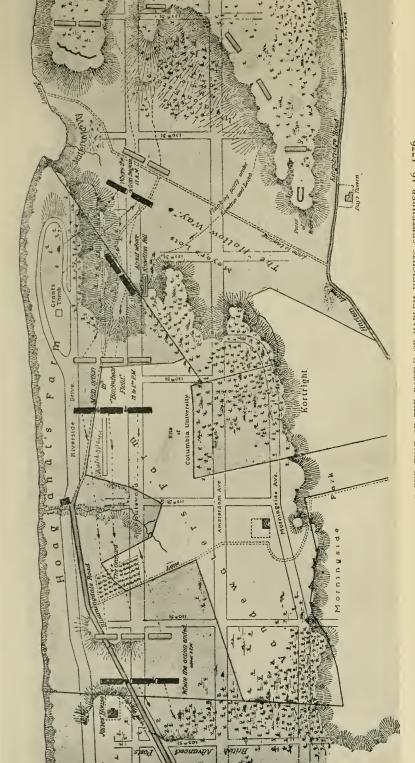
¹ In addition to \$445,885 included in the Columbia University Budget.

² In addition to \$853,150 included in the Columbia University Budget.

³ In addition to \$66,350 included in the Columbia University Budget.



BLOOMINGDALE ASYLUM, 1821 ON THE SITE OF THE PRESENT LIBRARY OF COLUMBIA UNIVERSITY



REPRODUCED FROM PROFESSOR JOHNSTON'S "BATTLE OF HARLEM HEIGHTS" BY PERMISSION OF COLUMBIA UNIVERSITY PRESS MORNINGSIDE HEIGHTS AT THE TIME OF THE BATTLE OF HARLEM HEIGHTS SEPTEMBER 16, 1776

On March 12, 1930, Herbert Gardiner Lord, A.M., Professor of Philos-

ophy retired, in the eighty-first year of his age.

On March 21, 1930, V. Everit Macy, Ph.B., a Trustee of Teachers College since 1892 and Chairman of the Board since 1905, in the fifty-ninth year of his age.

On June 4, 1930, George King, M.D., Assistant Professor of Clinical Medicine, in the thirty-seventh year of his age.

On August 11, 1930, John G. Milburn, a Trustee of the University since 1917 and chairman of the Trustees of Barnard College, in the seventy-ninth year of his age.

On August 23, 1930, Henry Rogers Seager, Ph.D., Litt.D., Professor of Political Economy, in the sixty-first year of his age.

On August 26, 1930, Mrs. Henry Fairfield Osborn, a Trustee of Barnard College since 1893, in the seventy-third year of her age.

On September 19, 1930, Marion Root Pratt, Executive Secretary of the Horace Mann School, in the sixty-first year of her age.

On October 6, 1930, Evelyn Batchelder, Teacher in the Horace Mann Elementary School, in the sixty-second year of her age.

On October 29, 1930, Ellwood Hendrick, Sc.D., Curator of the Chandler Chemical Museum, in the sixty-ninth year of his age.

During the year there died also, on August 12, 1930, Mrs. Flavia Canfield, widow of the late James H. Canfield, Librarian of the University from 1899 to 1909.

It is fortunate in many ways when particular districts or sections of a great city have sufficient individuality and sufficient likeness of occupancy and use to gain a character and a reputation that are unique.

Morningside

This has been true of ancient Athens, of Rome, of Paris and of London, and is now fortunately true of New York. Morningside Heights is known in every land and in every clime as the home of a group of public service undertakings devoted to learning, to philanthropy and to religion. So numerous and so powerful are these closely related and largely interdependent undertakings that Morningside Heights has a unity and a kind of repute hardly equaled by that of any other spot or section of a great city anywhere in the world. Protected on the east by a sharply rising cliff and on the west by the Hudson River, Morningside Heights is subjected to ordinary traffic only from north to south. It has, therefore, a relative remoteness and detachment all its own,

The name Morningside is popularly and justly applied to the territory included between Morningside Park on the east, Riverside Drive on the west, Cathedral Parkway on the south and West 122d Street on the north, with the exception of the blocks west of Amsterdam Avenue and south of 114th Street. The name appears to have come into use something more than sixty years ago when this section was laid out and developed by a special Commission acting under legislative authority. The name was first written as two words, Morning Side, and obviously was suggested as the opposite to River Side on the west. What is now Morningside Heights had earlier been part of that somewhat vague and irregular Bloomingdale, which was the name applied to the west side of Manhattan Island in its middle part by the original Dutch settlers. The name was taken from a suburb of Haarlem, from which a number of those settlers came. Bloomingdale, which originally extended as far south as the present Union Square, was steadily restricted in its application as population increased and farms developed farther away from the southerly point of Manhattan Island. Eventually Bloomingdale was the name given to what is now Morningside Heights and to a considerable part of the territory lying immediately south of that district. The word Bloomingdale is first used in this connection in 1688, and much has been written about it from that day to this. It gave its name to the asylum, under the jurisdiction of the Society of the New York Hospital, which occupied the present site of the Library of Columbia University for three-quarters of a century, being removed to White Plains in 1894 when the occupancy of the site by Columbia University began. Before that the present Morningside Heights was often referred to as Vandewater Heights from the name of the owner of the Harmon Vandewater farm which included this area. It was also sometimes known as Harlem Heights, that being the name applied to the entire ridge running along the west side of the Harlem Plain from what is now Central Park to the Harlem River.

Whoever hit upon the name Morningside made a happy contribution to the topographic nomenclature of New York,

and provided for the great group of institutions which now occupy that territory a name for their home which has become as honorable as it is appropriate.

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NICHOLAS MURRAY BUTLER,

President

November 3, 1930

TABULAR STATEMENTS

TEACHING STAFF

				College		Total ²	
Teaching Staff	Columbia University	Barnard College	Teachers College ¹	of Pharmacy	St. Stephen's College	1928-	1929-
Professors (including Clinical Professors) Associate Professors (including Associ-	329	15	68	4	8	319	329
ate Clinical Pro- fessors)	137	12	22	7	4	123	137
fessors)	241	22	35	6	3	220	241
Associates	116	2	21	I		113	138
Instructors	406	28	87	18	5	489	511
Lecturers	95	29	45	3		126	143
Curators	3					4	3
Assistants	230	10	62			272	292
Total	1,557	118	340	39	20	1,666	1,794
University Extension and Home Study not included above	595					539	595
Summer Session not included above	504	13				518	517
Total	2,656	131	340	39	20	2,723	2,906
Administrative Officers not enumerated							
above as teachers. Emeritus and Retired	52	8	15	3	2	63	66
Officers	41	2	7	2	I	37	42
Total	2,749	141	362	44	23	2,823	3,014
Employees	1,705	172	698	19	29	2,170	2,623

¹ Excluding the Horace Mann, Speyer, Lincoln, Quaker Grove, and Wilton schools.

² Excluding duplicates.

THE SITE

	Square Feel	Acres
A. 1. At Morningside Heights		
Green and Quadrangle	734,183	16.85
South Field	359,341	8.25
East Field	90,825	2.08
Columbia House	3,618	.082
Deutsches Haus	1,809	.041
Maison Française	1,809	.041
Residence of the Dean of the	T 900	0.47
College	1,809	.041
Residence of the Chaplain	1,809	.041
Claremont Avenue Property	29,000	.679
Casa Italiana	4,036	.092
435 W. 117	1,809	.041
	1,230,048	28.238
2. New Medical Center		
[Broadway and 168th Street]		
Total site, 891,185 sq. ft.		1
20.458 acres		
Under ownership of Columbia		
University	471,158	10.816
3. At Baker Field	1,221,385	28.039
[Broadway and 218th Street]		
	2,922,591	67.093
. Barnard College	177,466	4.07
. Teachers College		
1. At 120th Street	156,420	3.591
2. At 509 West 121st Street	17,035	.391
3. At 512, 514 West 122nd Street		
and vacant lots	16,535	.380
4. Lincoln School	47,500	1.090
5. At 106 Morningside Drive	17,668	.406
6. At Van Cortlandt Park	619,600	14.224
7. At Speyer School	4,917	.113
[514 West 126th Street]		
Total for Teachers College .	879,675	20.195
College of Pharmacy	7,516	.172
[115 West 68th Street]	710-3	
. Camp Columbia, Morris, Conn.	25,495,668	585.3
St. Stephen's College	1,481,040	34.
Total	30,963,956	710.830

DEGREES CONFERRED

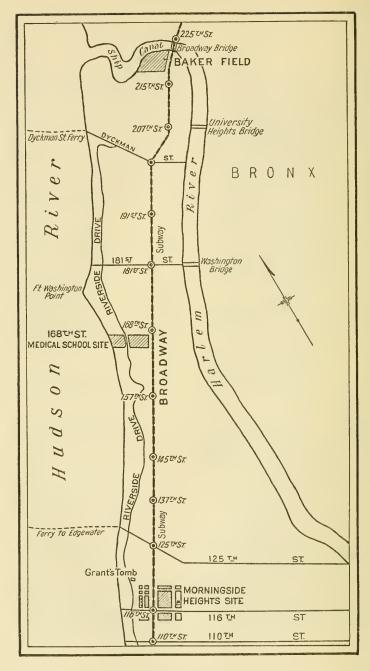
During the academic year 1929–1930, 4,914 degrees and 859 certificates and diplomas were conferred, as follows:

COLUMBIA COLLEGE:		University Council:
Bachelor of Arts	346	Bachelor of Science (Gen-
n		eral Studies) 24
BARNARD COLLEGE:	240	Bachelor of Science (Optom-
Bachelor of Arts	240	etry) 4
FACULTY OF LAW:		University Extension:
Bachelor of Laws	179	Certificate in Secretarial
Doctor of Law	í	Studies
Master of Laws	2	Certificate in Library Ser-
		vice
FACULTY OF MEDICINE:		Accounting
Doctor of Medicine	105	Accounting
F Francisco		Certificate in Fire Insur-
FACULTY OF ENGINEERING:	4.5	ance
Bachelor of Science	45	· ·
Engineer of Mines Electrical Engineer	5 8	College of Pharmacy:
Mechanical Engineer		Pharmaceutical Chemist . 38
Civil Engineer	5 8	Bachelor of Science 19
Chemical Engineer	12	Doctor of Pharmacy I
Master of Science	37	FACULTIES OF POLITICAL
	0,	¿ SCIENCE, PHILOSOPHY
School of Architecture:		AND PURE SCIENCE:
Bachelor of Architecture .	15	Master of Arts 684
Master of Science	2	Doctor of Philosophy 184
Carron on Townway your		FACULTIES OF TEACHERS COLLEGE:
School of Journalism: Bachelor of Literature	63	Master of Arts 1,951
Master of Science	13	Bachelor of Science 567
Certificate of Proficiency	- 3	Master of Science 25
in Journalism	2	Bachelor's Diploma 137
Journal		Doctor's Diploma 2
SCHOOL OF BUSINESS:		Master's Diploma 577
Bachelor of Science	76	SAINT STEPHEN'S COLLEGE:
Master of Science	36	Bachelor of Arts 19
Certificate in Secretarial		· · · · · · · · · · · · · · · · · · ·
Studies	16	Union Theological Seminary: Master of Arts 2
SCHOOL OF LIBRARY SERVICE:		
Bachelor of Science	139	Total Degrees, Certificates
Master of Science	20	and Diplomas granted 5,773
THE COLUMN TO TH		Number of individuals re-
SCHOOL OF DENTAL AND ORAL		ceiving them 5,069
Surgery:		College of Pharmacy:
Bachelor of Science	10	Graduate in Pharmacy 200
Doctor of Dental Surgery .	29	· ·
Certificate in Oral Hygiene.	72	Honorary Degrees 139

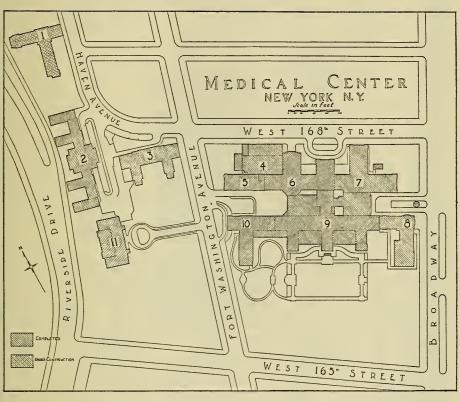
STUDENT ENROLLMENT

	-			
		Totals	Gain	Loss
RESIDENT STUDENTS A. WINTER AND SPRING SESSIONS Undergraduate Students: Columbia College Barnard College University Undergraduates . Saint Stephen's College Seth Low Junior College Total Undergraduates	1,948 1,104 171 132 383	3,738	35 9 8	40
Graduate and Professional Students: Political Science, Philosophy and Pure Science Architecture Business Dental and Oral Surgery Dentistry Oral Hygiene Engineering Journalism Law Library Service Medicine Optometry Pharmacy Teachers College: Education Practical Arts Unclassified University Students	3,247 110 485 213 78 217 181 600 250 438 22 809 4,519 2,169		274 6 41 29 7 21 66 534 221 66	4 48 23
Total Graduate and Professional Students		13,626 13,817 10,330 41,511 3,281 38,230	1,233 612 1,663	190
II. NON-RESIDENT STUDENTS UNIVERSITY EXTENSION Extramural courses Special courses III. HOME STUDY STUDENTS UNIVERSITY EXTENSION Home Study courses		2,867 575 9,928	678	89

ILLUSTRATIONS



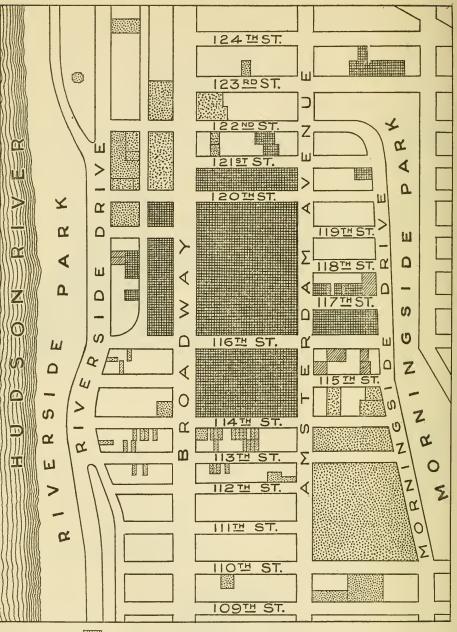
RELATION OF NEW MEDICAL CENTER
AND BAKER FIELD TO MORNINGSIDE HEIGHTS



- I. Medical School Residence Hall
- 2. New York State Psychiatric Institute and Hospital
- 3. Neurological Institute
- 4. Power Plant
- 5. Service Building
- 6. College of Physicians and Surgeons

- 7. Vanderbilt Clinic School of Dental and Oral Surgery
- 8. Babies' Hospital
- 9. Presbyterian Hospital
- 10. Harkness Pavilion
- II. The Presbyterian Hospital School of Nursing

MEDICAL CENTER



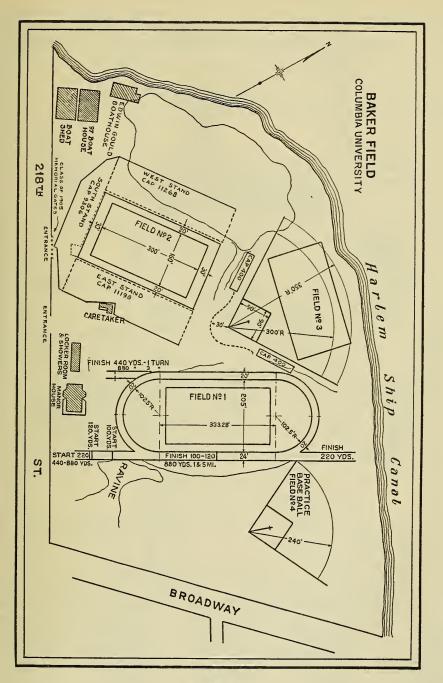
COLUMBIA UNIVERSITY PROPERTY FOR EDUCATIONAL PURPOSES

OTHER COLUMBIA UNIVERSITY PROPERTY

OTHER PUBLIC INSTITUTIONS INCLUDING FRATERNITY HOUSES

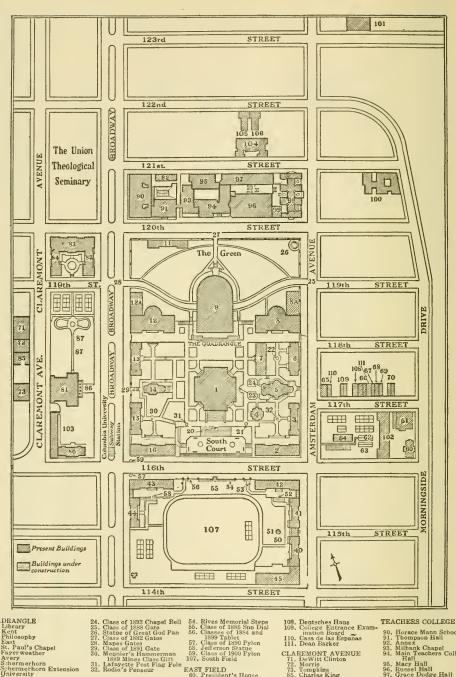
MORNINGSIDE HEIGHTS

A CENTER OF INSTITUTIONS OF LEARNING, OF THE HEALING ART AND OF RELIGION



BAKER FIELD

PLAN OF BUILDINGS AND GROUNDS



DRANGLE Library Kent Philosophy East Se, Faul's Chapel Fayer weather Schermerhorn Extension University Paysics Chandler Laboratories Engineering Earl Mines School of Resiness School of Atam Mater Class of 1881 Flag Staff Class of 1881 Flag Staff Class of 1887 Well Head Class of 1886 Exedra

- SOUTH FIELD
 40. Livingaton
 41. Hartley
 42. Hamilton
 43. Journslism
 44. Furnald
 46. On day
 60. Ohn day
 61. VanAmringe Memorial
 62. Hamilton Statue
 63. Mitchel Memorial

- EAST FIELD

 60. President's House
 61. Faculty House
 62. Faculty House
 63. Agricultural Greenhouse
 64. Crocker Institute
 65. Casa Italiana
 66. Casa Italiana
 67. Come Study
 68. Chaplain Knox
 68. Chaplain Knox
 69. Maison Française
 70. Carnegie Endowment
 102. Johnson Hail

- CLAREMONT AVENUE
 71. DeWitt Clinton
 72. Morris
 73. Tompkine
 85. Charles King

- BARNARD COLLEGE
 80. Brooks
 81. Brooks
 82. Arnerhoff
 83. Milbank
 84. Fiske
 86. Helen Hartley Jenkins
 Geer Memorial Gate
 87. Milbank Quadrangle
 103. Hewitt

- 90. Horace Mann School
 91. Thompson Hall
 92. Annex
 93. Milbank Chapel
 94. Mall
 95. Macy Hall
 96. Russel Hall
 97. Grace Dodge Hall
 97. Grace Dodge Hall
 97. Grace Dodge Hall
 97. Star Low
 100. Seth Low
 101. Lincoln School and 1
 104. Rancroft
 106. Sarasota

REPORT OF A COMMITTEE OF SIX CITIZENS ON THE WORK OF THE UNIVERSITY AND ITS NEEDS

I

LETTER OF PRESIDENT BUTLER

Columbia University in the City of New York

PRESIDENT'S ROOM

Personal and Confidential

February 16, 1929

Messrs. Bernard M. Baruch Walter S. Gifford Philip G. Gossler Darwin P. Kingsley Morgan J. O'Brien Henry S. Pritchett

Dear Sirs:

On October 31 next there will be celebrated the 175th anniversary of the granting of the Charter of King's College in the Province of New York, out of which the Columbia University of to-day has grown. The Trustees, after long and most careful consideration of the burdens which they bear and of the varied forms of service which the University is called upon to render, have decided to ask the kindly and generous cooperation of six distinguished representatives of the life of the City of New York in making known to the larger public the University's needs and opportunities.

The Trustees have definitely determined neither themselves to undertake nor to authorize any organized movement of the conventional sort to secure the funds which Columbia University so sorely needs. As alternative they wish to have the group of six gentlemen named study in their own way and with such technical and secretarial assistance as they may choose, the cost of which the University will gladly provide, the present needs of the University, and after fully informing themselves of all the facts, unite in authorizing a statement to the public over their names which will, the Trustees hope and believe, result in a generous response from the citizens of New York.

It is the judgment of the Trustees that such a dispassionate and objective statement, authorized by men of the highest competence and themselves deservedly esteemed by the entire community, would go far toward impressing the imperative needs of Columbia University upon the mind of the citizens of New York. They feel that when the facts are vouched for by you and your associates, the result will be a response from the public that will in due time, through gifts and bequests from many sources, put Columbia in possession of the additional capital resources which it so greatly needs.

Hoping that the Trustees may have the benefit of your kindly and generous service in this undertaking,

I am, Faithfully yours,

NICHOLAS MURRAY BUTLER

REPORT OF THE COMMITTEE TO THE PRESIDENT

New York City, December 3, 1929

Dear President Butler:

In connection with the celebration of the 175th Anniversary of the Founding of King's College, you were good enough to suggest to a small group of citizens of New York, whose signatures are attached hereto, the desirability of some review of the problems, resources, and future needs of Columbia University. In accordance with this suggestion, we whose names are signed hereto have endeavored to visualize the situation of Columbia University with respect to its obligations and resources and to describe briefly those obligations and resources with relation to the immediate future. In doing this we have not undertaken to analyze courses of study but rather to apprehend the University as an intellectual centre and representative of our City.

Ι

The Relation of Columbia University to the City of New York

The present moment, when Columbia University celebrates the 175th Anniversary of its Founding, is particularly appropriate for an appraisement of its resources and for a look into the future.

Charles II created the Province of New York in 1664. In 1754 George II established, by royal charter, King's College. After the American Revolution King's College became Columbia College and Columbia College became Columbia University in 1896. When King's College was founded the population of the City of New York was less

than 20,000. Today its population is nearly 6,000,000. During this interval Columbia University has developed from a modest college into a great urban university, with faculties of literature and of science, with great laboratories of research, and with professional schools of law, medicine, and engineering.

The City of New York and Columbia University have grown together, so that today Columbia stands as one of the world's leading universities, in a city which has become the most important municipality in the nation. The opportunities of the City and of the University for service to the nation and to the world are unique.

П

The Financial Resources and Income

Columbia University has resources of over \$100,000,000. Of this sum about \$67,000,000 is income producing and of this \$67,000,000 only approximately \$33,000,000 provides income whose use is non-restricted. The greater part of the income must be devoted to designated purposes.

The income of the University for the present year is estimated as follows:

From real estate .									\$1,688,246.38
From securities									1,810,582.79
From current gifts									365,600.88
From student fees									5,333,322.00
From miscellaneous									382,510.26

\$9,580,262.31

This income will be increased by new leases on real estate on Fifth Avenue from 48th to 51st Street but such increases, up to the year 1935, will be almost completely absorbed by commitments already made. After that date the net increase in income will amount to about one and one-third millions annually.

III

Annual Expenditures

Expenditures for the year just closed are as follows:

Educational administration and instruction	\$7,159,696.88
Maintenance of buildings and grounds	1,009,061.82
Libraries	375,293.96
Student aid	315,555.38
Business administration	237,872.00
Interest and redemption funds	869,651.54
Annuities and pensions	264,100.26
_	

\$10,231,231.84

Columbia University is conducted under rules of strict business responsibility. Its budget is prepared and its expenses authorized by its trustees with great care. Its financial administration is that of a careful, well-organized business corporation.

IV

National and International Influence of Columbia University

The service of Columbia University to the City and to the nation must grow with the growth of the City and of the nation. Furthermore, in this cosmopolitan city, international relations are assuming a role far beyond anything anticipated before the Great War. Students from Europe and from Asia are resorting to the United States in unprecedented numbers, and Columbia University is a large and increasing factor in this international situation. International House shelters students of many nations, living together in cordial social contacts. Maison Française and Deutsches Haus serve as residences of the visiting professors from France and Germany and as headquarters for relations with the universities of these countries. Casa Italiana, erected under the auspices of Columbia University, serves as a centre of Italian culture in the United States and contains rooms for professors and students and a library of 10,000 volumes devoted mainly

to contemporary Italy. It serves as headquarters for the Institute of Italian Culture in the United States. The students from other countries not only make use of International House, but various societies are maintained for the social intercourse and intellectual progress of groups of students of all nationalities. Columbia University is perhaps today a more active centre of international influence upon the student life of Europe and Asia than any single American agency. Every student who comes here from Asia, from South America, and from Europe returns to his home an agent of goodwill.

V

Needs of the Immediate Future

A university cannot stand still. Like all other living organisms it either grows or decays. Great as is the present work of the University it is facing new obligations and new opportunities. It does not expect to add to the number of its students but it does expect to offer to these students greater opportunities in the intellectual life, in the sciences and arts, and in the professions. Looking ten years ahead, the immediate and pressing needs are, in particular, these:

For buildings, \$9,500,000. Of this sum, three and one-half millions will be required to complete University Hall, begun several years ago and built only as far as the first story. This building is urgently needed to shelter not only the administrative offices but to care properly for the great collections of books which cannot be made available to students in the present library. That library will be turned into a library of research, for which it is admirably suited. The remaining six millions of dollars are urgently needed for Engineering laboratories (including Chemical Engineering) and for buildings to house the work in English and in Political Science.

To keep abreast of its opportunities and the demands that will be made upon it, Columbia needs an addition to its annual income of approximately two and one-half millions of dollars. Of this sum, two millions are needed in order that the teaching and research staff of the University may receive fair and

reasonable compensation. In higher education, no cause is more important in America today than to dignify and strengthen the profession of the teacher and of the research worker. A fair income upon which the teacher can live, simply but comfortably, and out of which he can protect himself against the hazards of old age is a necessary part of the program of higher education. The teacher does not aspire to wealth or to luxury but he does need an opportunity for the intellectual life on a plane of dignity and comfort. Beginning with the year 1935, the additional money from new leases would furnish approximately one-half of the two and one-half millions just referred to.

Stated in the briefest terms, Columbia University, as it looks into the immediate future, needs \$9,500,000 for its building program and an addition of not less than \$30,000,000 to its endowment. This is not predicated upon any increase in the number of students. It relates wholly to the strengthening of the intellectual forces of the University and to the improvements of its facilities for work and for study so that it may offer to those who resort to it, whether from our own nation or from other countries, service of a higher quality.

VI

The Appeal to Citizenship

The facts just presented are accessible to any person who will take the time to verify them. They are presented in great detail in the reports of the President and of the Treasurer. We whose names are signed hereto are citizens of New York, not connected with Columbia University. As citizens it has seemed to us important that, at a time when the 175th Anniversary of the Founding of King's College is being celebrated, our fellow-citizens should recall the noble service already rendered by Columbia and seriously consider how that service can adequately meet the still greater opportunities and responsibilities of the future. The fortunes that accumulate in the hands of our citizens come into existence by reason of New York itself, which gathers in extraordinary

degree the forces—financial, economic, intellectual, and artistic—of a great new continent. Whoever has shared in the prosperity of New York's marvelous development should consider it a privilege to aid by gift in his or her lifetime, or by bequest, the great agency of the intellectual life represented by Columbia University. Such remembrance, arising unasked from the idealism of its people, will be the finest fruitage of citizenship.

BERNARD M. BARUCH WALTER S. GIFFORD PHILIP G. GOSSLER DARWIN P. KINGSLEY MORGAN J. O'BRIEN HENRY S. PRITCHETT

DR. NICHOLAS MURRAY BUTLER President of Columbia University New York City

RESOLUTION ADOPTED BY THE TRUSTEES OF COLUMBIA UNIVERSITY JANUARY 6, 1930

On motion of the President, the following resolution was adopted:

RESOLVED, That the sincere thanks and high appreciation of the Trustees be tendered to Messrs. Bernard M. Baruch, Walter S. Gifford, Philip G. Gossler, Darwin P. Kingsley, Morgan J. O'Brien, and Henry S. Pritchett for their generous and literally invaluable service in examining carefully and objectively the needs of the University and in uniting in a statement as to those needs, upon which statement the Trustees may confidently rely now and for years to come in enlisting the generous benefactions of the men and women of New York and elsewhere in the support of the steady widening and deepening work of the University.

It was moved and carried that the preceding report of the Fact Finding Committee be printed and referred, without publicity, to the Special Committee of the Trustees appointed to assist the President in securing new funds.

COLUMBIA COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

As Dean of Columbia College I have the honor to present the following report for the year 1929–1930.

My reports for the past two years have been devoted for the most part to the revision of the curriculum, and to questions growing out of that revision. In view of the fundamental character of some of the changes in the course of study, it is not surprising that this topic should persist. Until a complete college generation has come under the new curriculum, more or less adjustment is inevitable; no one imagined when the changes were authorized two years ago that final wisdom had been revealed and that having passed the necessary resolutions the College could be left to run itself. In fact, one of the most important features of the revision has been the necessity for each department to review its work both in its larger aspects and in the details of its operation as well.

One or two specific items mentioned in my last report ought to be referred to again. The appropriation for the so-called Honor Scholarships has been continued so as to enable the Committee on Scholarships, on nomination by the Director of Admissions, to appoint about twenty freshman scholars for the year 1930–1931, at an annual stipend of five hundred dollars, and to continue the awards to those who have held one of these scholarships during the past year. Many of these scholars come from points remote from New York City, and all of them from outside the greater city.

The question must inevitably arise as to the wisdom for the boy, as well as for the College, of encouraging a youth from Arkansas, from Oregon, or from Missouri, to leave the home environment and the local opportunities for higher education and to come to the college in the great university in the great city. Not much light on this question can be gained from the students themselves while they are still in college. Any good college and many inferior ones can enlist the loyalty of the student who has known no other. Our experience of the past year is enough, however, to evaluate certain very real advantages of the policy. In the first place, it is certain that the academic pace in Columbia College at the present time is such that the very highest grade boy from the best high schools in the cities of Arkansas, Oregon, and Missouri will have to exert himself to the utmost in order to maintain a standing which will satisfy his self-respect. This situation will tend to raise the level of scholarly work in the schools from which the Honor Scholars come by stimulating competition for the award of a scholarship to a student from the same school another year. Furthermore, if wisdom is used in the selection of these scholars by the principals of the local schools, only those will be nominated who combine the intellectual power, the stability of character, and the clear ambition to make the best use of the opportunities offered by a college in a university. If discretion is used so that a student who ought to come to a college like Columbia College is enabled to do so, then surely the scholarships serve an important purpose for the boy. When this has been said no further comment is necessary. The College exists in order that youths who need the kind of education that it offers may have an opportunity to get it. If the Honor Scholarships serve this purpose for twenty freshmen who are the outstanding members of their respective secondary schools they are by definition useful. The fact that they bring to the College a sampling of students from remote parts of the country is a further but secondary good. Columbia College is attempting to perform a service in higher education that is suited to its opportunities and environment, quite different in many respects from the run of American colleges. There is no difficulty in making this reasonably clear to a large clientele in the vicinity of New York. It is not easy to explain to prospective students from remote points just why Columbia

College would or would not be adapted to their needs. It is obvious that carefully selected students from a given school can do more to help in the direction of giving pertinent information than many pages of written material.

Another innovation mentioned in my report of last year has to do with the physical examination given to incoming freshmen at the opening of the college year. The University Medical Officer will undoubtedly report on the usefulness of this examination from his point of view. From the point of view of my office and those of the Assistants to the Dean it has served a most helpful purpose. Each freshman is given a letter grade indicating his general physical condition. This code includes a cross-reference to a report concerning any physical defect that ought to be considered in prescribing physical exercise or academic work. For example, if a freshman is not sufficiently vigorous to carry a full schedule of academic work the report is sent to the boy's adviser and his schedule is adjusted to fit the necessities of the case. Each freshman also receives a letter rating which indicates the kind and amount of work for his support that the boy should, or should not, take. Some boys may be vigorous enough to carry a full academic load, but ought not to do outside work to earn money to help pay their expenses. Others ought not to take on inside or sedentary occupations. This all comes out in the ratings furnished by the University Medical Officer, is recorded on the student's personal record card, and is used when occasion arises. It is difficult to conceal my feeling of satisfaction when a parent calls to inform me that his son has a weak heart and should not be required to climb stairs, to assure him that we had already discovered that fact and had sent him an elevator pass. The more intimately we know our students the more certain we become that we shall never be able to give them a thoroughly satisfactory intellectual training unless we find out and check up from time to time during the course concerning their physical condition. The thorough physical examination just mentioned is a long step in the right direction.

The use of the placement examinations and achievement tests referred to in my last report has been continued. In all, 39 per cent of the September and February freshmen received exemption from required work in one or more courses on the basis of these examinations, amounting in all to 1031 semester hours of work. On checking the accomplishment of these students in the courses to which they were promoted the results are the same as reported last year for the corresponding group. Practically every man passed his work well, many with distinction.

The original point of departure for the study of the curriculum which resulted in its revision three years ago was in the requirement for concentration. In order that a student might not get his degree merely by passing elementary courses during his entire four years the device of requiring for graduation sixty so-called maturity credits was authorized. Generally speaking, a course which is normally taken by members of the junior class bears maturity credits equal in number to its point credit value for the A.B. degree. The question has often been asked as to just what kind of course maturity credit is supposed to accompany. Is "maturity" sheer mental development as indicated by intellectual curiosity and accomplishment? If so, many freshmen have more maturity when they enter college than some of their classmates will ever have. Or is it merely a certification that the student has passed the course in the department which is prescribed for admission to the maturity credit-bearing course? If so, it does not necessarily have much to do with what would naturally be called real intellectual maturity. There ought to be, and as a matter of fact is, less difference between the two points of view just expressed than some of the cynical critics of our colleges would imply. But so far as there is any distinction, the experience of the last year has tended toward the former definition of maturity for the purpose indicated. This means that observation and evaluation of the talents, ambition, and accomplishment of the individual student take precedence over other considerations. If a student shows that he has the necessary information, a genuine intellectual interest, and a record of high accomplishment, the mere fact that he has not gathered fifty-six points on the Registrar's books, and hence is technically not a junior, should not debar him from taking a maturity creditbearing course for which he is otherwise qualified. With this idea once clear it has been possible for the various departments to assign maturity credit to courses that require more than an elementary knowledge of the subject, and which would usually though not necessarily be elected by juniors.

In the case of the departments collaborating in the course on contemporary civilization the situation is somewhat complicated. Most, if not all, of the subject matter in that course that is preliminary to departmental courses in philosophy or history is found in *Contemporary Civilization A*, which is required for freshmen. In case a student has demonstrated to his instructor in *Contemporary Civilization A* that he possesses the intellectual qualities as well as the factual background to carry a maturity credit-bearing course in philosophy or history parallel with *Contemporary Civilization B* in his sophomore year, he can be authorized to do so. In this way it may be possible for a competent sophomore to carry one or two maturity credit courses.

There are two other complications concerning maturity credit that ought to be mentioned. Certain excellent and very demanding courses were not assigned maturity credit because they did not presuppose any specific work in the department. It may well be that in such courses maturity brought to the course might be evidenced by distinguished work actually done in the course.

Again it turns out that in certain of the pre-professional courses, notably the pre-medical course, the minimal scientific courses which are required for admission to a medical school do not afford the student the necessary sixty maturity credits. If a student goes forward to a medical school we certainly do not need to worry about his field of concentration. His college time ought to be used for dispersion rather than for more scientific concentration. Consequently it has been necessary, acting under an enabling resolution of the Faculty, to assign

a number of maturity credits to one or two combinations of courses in excess of the number of credits designated to these courses taken separately.

These details of the working out of the plan for maturity credits are given in order that it may be clear that the College is not setting up a mechanical system to which all must conform whether it suits their own educational needs or not. It is rather developing a norm, adherence to which will for most students insure a solid and excellent undergraduate education, but which is subject to interpretation in the case of individuals or groups of competent students whose education would be rendered less effective by a strict enforcement of the rule. It is merely another case where the rule is made for the student, not the student for the rule.

One of the novel features of the new curriculum is the so-called lecture course. These courses consist of two lectures a week, for which one point credit is given, without examinations, tests, or required reading. Although still in the experimental stage, it looks as though these courses performed a useful function. It is likely that a lecture course on current events, given by several members of the staff, will be organized by another year. It is also suggested that lecture recitals by the Department of Music would be an appropriate offering under this general caption.

The most important new legislation passed by the Faculty during the year affected the language requirements for the degree. The issue was raised in a letter addressed to the Committee on Instruction by the Department of Italian. Under the old requirement Italian was not recognized even as an alternative requirement for the degree. French, German, and Spanish were, however, on even terms with each other. It seemed to the Committee that the French and the German languages stood by themselves as the most important of the modern languages for the average college graduate. In the second rank of importance, but for quite different reasons, stand Spanish and Italian, with other modern languages in substantially the same class on grounds special for certain individuals.

The whole discussion hinged first on what kind of competency in the modern languages the Faculty wished to prescribe, and, second, how long a time it would take to acquire that competency. The entire situation in regard to the place and function of the modern foreign languages in a college curriculum is highly confused. If by passing a resolution it were possible to insure the study of at least one foreign language by prospective college students at the age of seven, or whenever it is that the child most readily acquires the rudiments of another language, it might be well to do so. But even if one desired such a result it would be quite absurd to propose it. Again, if the graduates of our colleges were usually called upon to use the spoken language it might be desirable to require fluency in that aspect of French or German. It goes without saying that for the comparatively few who in travel, in business, or professional contacts wish to converse in a foreign tongue a ready command of the spoken language is highly appreciated. But this comprises only a small group of our graduates. It is difficult to justify the requirement of any considerable degree of fluency in the spoken language for the entire student body for the sake of the few. This is especially forcible when we recall that there is greater individual difference in the ability of otherwise intelligent persons to acquire a foreign spoken language than in almost any field of study that one can mention. When one meets scholars of foreign birth who have spent most of their lives in this country, speaking English all of the time, and who make themselves understood only imperfectly and with difficulty, any expectation that the rank and file of college students can gain any real command over a spoken foreign language in the three or four hours a week that can be devoted to it entirely is unjustified. I believe that the foregoing statement would be accurate even if the students felt that such a requirement involved a wise use of their time. But given the attitude of any student body that I know, such an emphasis in our language instruction would be quite futile.

In the acquisition of a technical vocabulary the situation is not very different. Probably a much larger proportion of Columbia College graduates finds it desirable to read a foreign language than to speak it. The engineer, the chemist, the business man, the physician, and of course the scholar in any field should be able to read at least one or two languages in addition to his own. It goes without saying that the vocabulary and style employed by the scientist, the philosopher, and the banker are quite distinct, and that so far as college instruction is concerned no one of these highly technical vocabularies should be included in the requirement for the A.B. degree.

As a consequence of these considerations it appears that the requirement for the degree in a modern foreign language should include only so much of the structure of the written and spoken language as will serve as a basis for more extensive study in any one of the directions in which the individual may desire to go. The language departments agreed that in two college years of study of a language the elements which constitute the common preparation for the study of the various more extended features of the subject can reasonably well be acquired.

This does not mean that there should not be ample opportunity for a student to pursue any aspect of any language that he may desire. Neither does it mean that courses in all these aspects should be required for the degree. When the fundamentals have been acquired and the individual finds that he wants to read medical German or French newspapers he should by all means do so. If a course in the subject is handy he can take it. But any man who has gained the fundamentals as provided in our requirements, and who really wants to read the language, can do so if he has any brains to start with. He can also learn to speak the foreign language if he has been endowed by nature with a limber tongue. The foregoing considerations led to the modification of our requirements in the foreign languages for the A.B. degree. The exact words of the new requirement need not be repeated here. For their detailed form reference may be made to the current Announcement of the College.

Instruction in English composition furnishes one of the

unsolved problems in college education. When our American school system and social order has become stabilized, as is the case to a much greater extent in England and France, the problem will undoubtedly vanish. But with our student body as it is, it is impossible to assume that the combination of school discipline and family background results in smooth and refined command of English style. Even with our best efforts the crudeness in the use of the language displayed by many college graduates is not to our credit nor to theirs. After many years of experimentation in various directions the Department of English has determined to attack this difficult problem from a new angle. Accomplishment in English composition is not to be measured in terms of a grade in a course. During the first six weeks or so of the freshman year the new students will be given ample opportunity to show whether they are reasonably proficient in writing. If so they will be exempt from further instruction in composition unless a relapse is reported by some college teacher. If the student does not receive exemption he is turned over to a member of the English staff for drill and instruction. This tutorial relation will continue until reasonable competancy is achieved. The progress of this plan will be observed with great interest. If it turns out that the students who drag along for months and years before obtaining a release from work in English composition are poor students in all their work, it may well be that the Department of Admissions can devise some means of detecting the situation before the student enters, and thus save both the youths and the College considerable waste of time and effort. As a matter of fact, it is becoming increasingly clear that competency in one's native tongue, when scientifically evaluated, is as good or perhaps a better index of ability to do college work than any one criterion that we have.

The only other question of any considerable importance that has been the subject of faculty action during the year under review has to do with the question of student attendance at classes. In many colleges this question has been discussed, and not infrequently rules of attendance have been relaxed,

at least for upper classmen. One cannot observe, however, a uniformity of result that would indicate the existence of any formula to cover the situation. Some years ago the Faculty voted that a student should receive full credit for a course in which he received a mark of B on all examinations, tests, essays, etc., regardless of his attendance record in the course, on the theory that if he had mastered the subject matter the exact way in which he had done it was immaterial. The Faculty went a little further this year and decided that no record of attendance need be handed to the Registrar in maturity credit courses. This does not mean that the students are urged to stay away from these classes, nor that the Faculty does not regard attendance as important. Neither does it mean that students will probably attend less regularly than in the past. In the opinion of many of the staff who were in favor of the action it merely meant that the omission of the somewhat disciplinary feature of the relation between student and teacher involved in counting noses each day would result in a more natural and effective basis for a common intellectual enterprise. At any rate, the result of the innovation will be watched with care. Anything that tends to arouse and maintain serious interest in things of the mind ought to be encouraged. If it turns out that the omission of rules of attendance leads to this result, by all means let them be abolished.

One of the easiest topics to talk about and the most difficult to carry into action is the ideal that Columbia College should attempt to use the great city as a laboratory. To be sure, the Bureau of Appointments does establish relations with many business houses in order to secure employment for our students. A certain amount of use is made of the art collections, and of dramatic and musical opportunities, by the appropriate departments. A few years ago the Department of Economics organized a limited course which consisted chiefly in the observation under supervision of various large manufacturing, commercial, and transportation enterprises in the city. Next year for the first time this opportunity for the observation of these concerns will be extended to all

members of the sophomore class. In connection with the required course in *Contemporary Civilization B* each student will take about half a dozen personally conducted trips, selected from a list of about twenty-five, of which the following are examples:

The Port of New York. A boat trip down the Hudson River (from West 129th Street), through the Upper Bay and up the East River. This trip is designed to give some conception of the magnitude of the Port and the relationship of the various land and water areas.

The New York City Police Department. The New York Police Department with nineteen thousand members is the largest in the world. The trip will include a tour through the Police College, the museum, safety bureau, rogues' gallery, and fingerprint rooms.

The Charles Schweinler Press. A visit to one of New York's largest magazine printing plants. Here an opportunity will be offered to see the electrotyping and photoengraving processes, linotype and monotype machines, and various types of modern printing presses.

The Bush Terminal (Brooklyn). Consists of terminal facilities (rail and water), cold storage plants, and loft space for manufacturing.

The Stock Exchange. The activities on the floor of the Exchange will be observed from the visitors' balcony.

The Federal Reserve Bank. This trip will permit the student to see some of the activities which are carried on by a "banker's bank."

Fire College, Signal Station, and Repair Shop. These units give some impression of the important and difficult task of protecting life and property in the city from fire.

There is no question that looked upon in terms of years rather than days or months, Columbia College is gathering about itself an individuality and an atmosphere that is distinctive and worthy. It is not exactly like the atmosphere of the ordinary American college. There is less of the rah-rah spirit, but more of the spirit of emancipation that comes with

an opportunity for growth. In the words of some of the members of the senior class who were being interrogated as to what features of their college experience had influenced them deeply, "Perhaps the most characteristic feature of Columbia College is the fact that if a man, student or teacher, holds a serious conviction it is respected." If this is true, those who have labored for the College during the many years of its life may well feel that they might say their nunc dimittis. Even if it is not wholly true it is worth a great deal to have keen and discriminating students think that it represents the College fairly.

One of the recent events that has added not a little to the warmth with which the graduating students regard the College is the reorganization of the Senior Class Day. This year, for the first time in many years, each senior received a diploma, theoretically his diploma, from the hand of the President of the University as the culmination of a Class Day marked by short speeches and dignified but intimate ceremony.

In looking forward to the future, the necessity that seems most immediate is more space for recitation rooms and offices for teachers. Since 1910 the College has more than trebled in size, involving a corresponding demand for room in which to do its work. Without seeking additional space specifically for the College the real work of the institution has been reorganized from top to bottom. Building always on the past, a personnel service has been built up for looking after the individual outside the classroom. This development has been carried forward in accord with the universal movement toward a greater individualization of collegiate education. If it is desirable to know the students in order that they may be more intelligently instructed, room is necessary for private conferences. Practically every office in Hamilton Hall is used by from two to five members of the staff. This condition renders impossible the use of the office either for effective study or for conference with students. It is impossible to become acquainted with the personality and particular problems of a boy unless one can get him alone. It is true that much of this conference work is done by the Assistants to the Dean, each of whom has a private office. It is, however, exceedingly important that every instructor should have the opportunity to hold private conference with his students. This one demand would require from forty to fifty additional offices.

With the development of seminar courses, particularly for the upper classmen, many small rooms, each with a large table and chairs, are needed, instead of the regulation classroom in which the chairs are fastened to the floor. The present-day method of college instruction involves the use of many books by the student. This means room for library and reading rooms. Where one room served the College Study adequately in 1910, a whole floor of Hamilton Hall is needed today.

At the present time about one-third of the classes in nonlaboratory courses are held outside Hamilton Hall. It is obvious that this condition tends away from the social solidarity of the College which we try so hard to encourage, against such heavy odds.

All of these facts combine to indicate that careful attention should be devoted at an early date to the condition described. It is physically possible to carry on under present conditions. Students of the College can go to the School of Business or the Physics Building for their freshman English. It is possible for four instructors to occupy the same office for their conferences and study. But such a condition renders impossible the development of a sense of unity and coherence on the part of the students, and of free and intimate relations between student and teacher.

In summary, the year under review has been one devoted mainly to checking up and watching the results of the more constructive work of the previous year or two. Although this work is not so exciting and conspicuous as the other, it is just as important; for it is the only way in which wise procedure can be separated from the impractical. Not until the principles involved in the higher education are as clear and as definite as the postulates of geometry can the method of trial and error in the administration of a live college properly

be superseded. That day does not seem to be much nearer than it was in the days of our fathers. Let us hope that it will never come, for life with all its ambiguity is much more interesting than geometry with all its certainty.

Respectfully submitted,

HERBERT E. HAWKES,

Dean

June 30, 1930

SCHOOL OF LAW

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

As Dean of the Faculty of Law, I have the honor to submit the report of the School of Law for the academic year ending June 30, 1930.

In my report for 1929, I indicated the interrelation between the problems of legal education and the problems of lawmaking and law administration. I stated that the present ineffectiveness of law to perform more satisfactorily its function in society was due largely to the rapid changes in the economic and social structure which have occurred during the present century; that legal concepts born of a passing order were losing their utility; that devices for lawmaking and law administration designed to function in a simpler society were breaking down under the complexities of modern life; that efforts to adjust the law to present-day needs had not been more effective because of the basic assumptions upon which such efforts had proceeded. I called attention to the fact that where efforts have been made to bring about change in the law, whether by legislation or by judicial decision, action has proceeded largely upon the assumption that the justification of law is determined by its purpose rather than by its effects. I emphasized the fact that law is merely one device for social control and as such it is useful only when it works. I pointed out the futility of haphazard legislation, particularly when enacted without due regard to the problems of administration and enforcement. I explained how the abuse of stare decisis had retarded the courts in their efforts to bring about change; how the habit of lawyers and judges of looking almost exclusively to previous court decisions for the solution of current problems had led to an intellectual

inbreeding which had tended to deprive the common law of its boasted elasticity, and how this practice had reacted upon juristic thought and legal education with baneful effects. I contended that if the law is to be made more useful in the regulation of human affairs, the lawyers and judges of the future must acquire an understanding of legal phenomena, an appreciation of the social implications of rules of law and a knowledge of their actual effects, which cannot be obtained from the literature of the law alone. Other sources of information and ideas must be provided and a technique of lawmaking and law administration must be devised which will facilitate the use of all available knowledge. I urged that the university law school, in addition to acquainting its students with legal doctrine and lawyers' technique, should devote itself to the tasks of making more available for the use of the lawyer knowledge derived from other fields of learning, and of training its students to make use of such knowledge in their thinking about problems of law.

My report for 1929 was intended to explain why the Faculty of Law had undertaken a reorganization of the work of the School and to indicate what had been accomplished after several years of study and experimentation. I sketched the revision of the curriculum which had taken place, describing in some detail the new source books designed to focus the study of law against its economic, political, and other social backgrounds. I outlined the various research projects which were under way, not only in law but in related fields, in order to make available for the use of lawyers pertinent non-legal as well as legal data. I discussed the effects upon the quality of student work resulting from the policy adopted in 1928 of restricting admission to a selected group of students chosen upon the basis of their fitness to comply with the new standards of the School, and I described the changes in teaching methods which aimed at stimulating more original and independent work by the students.

The results which had been obtained in 1929 were most encouraging, and equally gratifying are the achievements during the year just ended, but the consummation of our

undertaking will depend largely upon the extent to which the Faculty continues to be capable of that self-criticism which is essential to the proper development of an educational program. The only danger in the Columbia experiment is the danger of a premature conviction regarding the desirability of objectives or the effectiveness of particular methods of attaining them. Only by continuous study and experimentation and the constant revision of its plans to accord with new experience can the Faculty approach a fulfillment of its ideals. If we are to accomplish the aims which have inspired the developments which are taking place, the hypotheses upon which we are proceeding must be constantly tested against actual results. There must be the same zeal to recognize and admit error as there is to proclaim success. A new hypothesis is usually assumed to be better than the one which it supplants, but its truth is not established by turning it into a dogma.

It is easy to draw an indictment of the law and the administration of justice. It is simple to point out defects and indicate changes which promise much. It requires no great ingenuity to assail legal doctrine or legal methodology or legal education and expose fallacies and ineffectiveness. It is not difficult to rationalize the propositions that improvement is more likely if there is a closer integration of law and economics, law and history, law and government, law and philosophy, law and logic, law and psychology, law and engineering, and that the university law school should aid in effectuating the integration, but it is no easy task to bring these things to pass.

In order to avoid misapprehension, it should be stated in no uncertain language that while the pooling of knowledge

derived from related fields is *prima facie* a sound working hypothesis, this does not mean that the members of the Faculty are so naïve as to think that the other social sciences are superior to legal science either in experience, in knowledge, or in method. Indeed, it has not been an uncommon experience for the dissatisfied legal scholar, who has made excursions into the realm of economics, or of philosophy, or of psychology, to

return with a feeling of relief to the more settled and orderly domain of the law, and it has been interesting to observe how frequently the psychologist or the economist who for the first time encountered the precise disciplines and techniques of the law, which have evolved from centuries of experience, has been inspired with undue admiration and respect. As a matter of fact, the law may offer more to the other social sciences than they offer to law. Nevertheless, the other social sciences offer to law a different experience, a different knowledge, and a different methodology. There appears no convincing reason why the lawyer should not enrich his own experience and knowledge by borrowing from his neighbor. The argument for integration is not that the other social sciences provide a ready solution to legal problems nor that law offers a ready solution to economic or other social problems, but that since the various social sciences, including law, deal with different aspects of the same social problems, a satisfactory solution of the problems is more likely if the knowledge to be derived from all sources is better coördinated. The advantages of coördination are easily perceived, but the barriers which have separated so effectively these various bodies of knowledge are not readily broken down. At the outset, we called in the economist, the philosopher, and the psychologist, to assist.1 They were helpful, they were

At the outset, we called in the economist, the philosopher, and the psychologist, to assist.¹ They were helpful, they were stimulating, they gave us ideas, they aided greatly in formulating a plan. But the economist, the philosopher, or the psychologist, who knows little or nothing about law, is as helpless as the lawyer, who knows little or nothing about economics or philosophy or psychology, to bring about an integration of any real value. These scholars have worked in isolation so long that they have developed dissimilar disciplines, dissimilar techniques, and dissimilar languages. Methods valuable for one purpose may be useless for another. Data highly significant for one purpose may be meaningless for another. Moreover, due to a difference in terminology or the meaning of concepts, it is exceedingly difficult for a

See the Annual Report of the School of Law for 1928.

specialist in one field to interpret correctly the data in another.

The progress which has been made is due to the fact that some economist or some philosopher acquired a working knowledge of law, or some member of the Law Faculty acquired a working knowledge of one of the other social sciences. Only in this way has it been possible to make effective use of non-legal materials in the study of law. It is, therefore, becoming more and more apparent that the complete accomplishment of our objectives requires that the members of the Faculty must be able to work effectively not only with legal materials, but also with related materials in other fields. This does not mean that each member of the Faculty must be a specialist in all the related fields, nor that he must be a specialist in all the subject matter of a single field. For the same reasons that a division of labor has been found necessary in working with legal materials, so there must be a similar division of labor in dealing with related non-legal materials. Thus, a man working with the legal materials concerning corporate securities should be competent to work with the economic materials dealing with finance, whereas the man working with the legal materials involving the sale of goods would be primarily concerned with the economic materials regarding marketing. Likewise, a particular study may involve the use of materials chosen from more than two fields, e.g., the problems of public utility rates involve not only legal and economic materials but also materials in the field of political science.

While the ability to work with the related materials in two or more fields is essential, this is not all that is necessary. Just as the specialist in the law of contracts, or torts, or property requires some knowledge of other legal subjects in order to give him background and perspective, so effective work with related materials outside the law calls for a general knowledge of the field, as a whole, in which the materials are found. Moreover, the wider the scope of the specialist's general knowledge, the better the perspective and the greater the probability of imaginative work. But there is a vast difference between that familiarity with many areas of human

thought and activity which provides background, and the detailed knowledge of a relatively small sector which is necessary for scholarly work. A general knowledge of many fields is both possible and desirable, but no man can acquire a specialized knowledge of more than parts of a few. Yet a mastery by a single individual of only parts of a few fields and the apperception of their interrelation is not possible without at the same time acquiring some knowledge of each field as a whole. The process of integrating parts of two or more fields necessarily tends towards the building up of background and the better understanding of the phenomena under consideration. Not the least of the advantages to be derived from efforts to coördinate the related parts of the various social sciences, is the greater range of knowledge required of the Faculty. This affords the best guarantee of improved educational opportunities for the students.

The improvement of legal science by making use of knowledge derived from other fields, requires not only the ability upon the part of the Faculty to find and interpret the existing materials, but also calls for coördinated research in the related fields for the purpose of ascertaining facts not already known which bear upon legal problems.

Research, like most useful activities, is not free from abuse. In the name of science, many investigations are made which lead to findings which are without value. may be due to the fact that the findings, although true, have no utility, or due to the fact that the findings, because of the methods by which they are reached, are not reliable. Research of the former type cannot be wholly avoided. It is impossible to determine in advance of an experiment or study what it will reveal and it is often difficult to determine the value of findings after they are known. Indeed, the value of particular findings may consist of establishing their unimportance and thus narrowing the field of future research. True, it is possible to form a rational judgment as to whether a projected study has potential value, but since all rational judgments are predicated upon past experience and existing knowledge, the most valuable type of research may, at the outset, appear useless because of the absence of the knowledge which investigation may reveal. For this reason a project should not be condemned merely because its value is not apparent. At most, one can only postulate the possible results and endeavor to determine the probability of particular results, and upon the basis of probabilities decide whether the study justifies the cost in money, time, and labor. Consequently, a considerable amount of fruitless research is inevitable in the quest for new knowledge that has value. I believe, however, that much of the waste incident to research in the social sciences could be avoided if more attention were paid to the methods proposed for conducting particular projects. Even though the information sought may have value, a study made for the purpose of obtaining that information is worthless unless the methods employed in conducting the study are calculated to produce reliable findings. Too often does it appear that the results of research in the social sciences are findings which represent nothing more than the opinions of the investigators. Certainly those who are advocating research in the social sciences should give serious consideration to this phase of the work if they expect to maintain public confidence and obtain the support which is so greatly needed.

Since the publication of my last report, gifts from foundations and other donors aggregating \$50,000 have been added to the funds available for research in law. These gifts bring the total amount which the School has received since January I, 1928, to \$206,000. The Faculty is thoroughly aware of the responsibilities assumed by the acceptance of these funds and every effort is being made to justify the confidence implicit in the grants.

During the year under review, several of the research projects begun in 1928 and 1929 were finished, others were advanced toward completion, and several new projects were started. The study of recent trends of corporate development, under the direction of Professor Adolph A. Berle, Jr., of Columbia Law School, with Mr. Gardiner C. Means as associated economist, has been finished; the results will be

published in a book entitled Corporations and the Public Investor. The survey of the law relating to the family, under the direction of Professor Albert C. Jacobs of Columbia Law School and Professor Robert C. Angell of the Sociology Department of the University of Michigan, has been completed; the report has been printed under the title, A Research in Family Law. The treatise by Professor John Hanna on the law of cooperative marketing associations is in the hands of the Ronald Press and will shortly appear in book form. The criminological survey under the direction of Professor Jerome Michael, aided by a staff of specialists, has been concluded; the report is now being written. The special study by Professor Raymond Moley, of the relative advantages of instituting felony prosecutions by an information filed by the prosecutor, as compared with indictment by a grand jury, has been finished; his findings are ready for publication. Professor Richard R. Powell has completed the redraft of the statutes of New Jersey relating to real property; his recommendations will be presented to the Legislature in January, 1931. The study of compensation for automobile accidents and methods of administration, in which Professors Chamberlain and Dowling are participating, is well under way; the committee expects to complete the work by June 30, 1931.

Among the developments of major importance which occurred during 1930, the establishment of a Foundation for Research in American Legal History is, perhaps, the most important. Some time ago the Faculty conceived the plan of establishing such a Foundation. The first steps in execution of this plan were taken in 1928 by the appointment of a research professor and by the introduction into the curriculum of a course in legal history required of all students. Prior to 1930 there had been accomplished as a result of this research: (1) a preliminary survey of the manuscript records in New York public archives covering the legal history of the Colonial period; (2) a study of the first New York code (the Duke's laws) in force from 1665 to 1691, which will shortly be published; and (3) the publication of a source book for the use of students. This book contains both English

and American materials. As a consequence of this work, it became evident that the task of reconstructing the development of the law in America from Colonial times onward is one of great magnitude. The field is so vast and has been so completely neglected that effective results require the efforts of an organized group of trained scholars.

A generous gift of \$25,000 by Mr. George Welwood Murray, an alumnus of Columbia Law School, provided the beginning of a permanent endowment and justified the establishment of a Foundation. Supplementing the income from endowment, the Trustees of the Commonwealth Fund made a liberal grant of \$25,000 to aid in financing the work during the next five years. The University agreed to contribute the services of Professor Julius Goebel, Jr., who will direct the work, and in addition agreed to appropriate \$12,500 for current expenses during this period. In the meantime it is expected that additional funds will be obtained which, added to those already contributed, will provide a sufficient endowment to finance the work after 1935.

It is the purpose of the Foundation to initiate a type of historical research where the emphasis will be primarily upon problems with which lawyers are constantly dealing. The kind of research which is contemplated and its usefulness in the proper administration of the law are excellently stated in the following excerpts from a memorandum recently prepared by Professor Goebel.²

The present day interest in the relation of law to social and economic data has profoundly affected legal research. It has turned the attention of scholars from a mere anatomy of rules to the study of how these rules affect contemporary society, and how the latter, in turn, affects the rules. The scholar using this method simply assumes the rules of law, and devotes himself to an inquiry of how it works in society, what keeps it going, and what are the obstacles in the way of its success. This method of research may be said to have also an underlying utilitarian aim, e.g., to demonstrate that a rule having undesirable social results should be changed. But the obviousness of such a conclusion as to any specific rule does not mean that the indicated changes can or will be accepted by the courts. Judicial reverence for the law implies a reverence for the rules that constitute

^{*}The complete text of Professor Goebel's memorandum appears in the New York State Bar Association Bulletin for September, 1930.

the law. This may be because the rules are viewed as the embodiment of reason. It may be because all rules are believed to have an organic connection as members of a system. It may be for no assignable reason at all. Excision of some rule may consequently be deemed unreasonable, or, more seriously, may be regarded as fatally disturbing to other organic parts of the system. Furthermore, courts are accustomed to perform certain gambits with rules. The doctrine of precedent measures the orbit of their movements; and this doctrine of precedent is a doctrine of reference to the historic past. Since the notion of precedent, going as it does to the very roots of the American judicial function, embodies a more fundamental type of policy than any considerations of transient social policy invoked by the sociological jurists, the technical obstacles in the way of making effective the results of modern research method are very great.

The idea that precedent supplies historical justification for the maintenance of a rule depends for its effectiveness upon the assumption that the mere existence of the rule in the past is all that needs to be demonstrated. But history is something more than this. Our ancient forms of law-reporting are responsible for this narrow view of history in that they stripped from the legal conclusion (the rule of law) its basic social premises. Social premises the law must always have had; for certainly, if social factors have something to do with shaping contemporary legal thinking, they were no less active ten centuries ago. It is the function of the legal historian to restore these obliterated portions of the picture. Once the nexus between the rule and the social conditions which were responsible for its creation is clearly established, the rule itself may be defended, or it may become open to attack by demonstrating its inapplicability to a situation where these social conditions no longer exist. Thus alone can a breach be struck through which modern social policy may enter. Thus alone can sound precedent be strengthened against attack, and unsound made to yield place. . . .

During the last three years the need for historical study of the kind described by Professor Goebel has been keenly felt by the members of the Faculty in charge of research projects in the fields of business organization, family, crime, and evidence. In connection with each project, historical studies were projected only to be abandoned because of the lack of personnel trained to deal with historical material. The Foundation for Research in American Legal History will, in the future, meet this need. Apart from the independent studies which the Foundation will make possible, its staff of experts will be available to assist with other projects which require historical investigation. The project on which

the Foundation is now engaged is an historical study of the classification of crimes and the relation of such classification to penalties. The study is concerned primarily with the changes in the conceptions of felony and misdemeanor with reference to all the implications: intent, malice, infamy, etc. In so far as procedural elements are involved, e.g., jury trial, these are also being taken into consideration.

While the acquisition of new knowledge through research is prerequisite to a better understanding of legal phenomena,

the knowledge thus acquired will have slight effect Curriculum upon legal thought and legal development unless Revision it is made available for use in connection with legal work. The busy lawyer or judge has not the time, even if he has the inclination, to assimilate the vast quantity of data annually collected, and the law student, because of his limited training and experience, is not capable of using it intelligently without proper guidance. The materials must be so classified and organized as to reveal their relation to concrete legal problems. This task is one which the legal scholars in the universities are best qualified to perform. Unless it is done by them, it is not likely to be done at all. Moreover, it is desirable that it should be done by them because it is they who are largely responsible for the training of future lawyers and judges. If new ideas are to be effective in the development of the law, they must be reflected in the education of those who are later to control that development. To a limited extent legal thought and practices can be influenced by the publication of treatises or articles in which new syntheses are made, but unless the oncoming generation of lawyers and judges are trained to make use of pertinent materials outside as well as inside the law books, there will be little change in the processes of the law. It is, therefore, of major importance that the law school curriculum should be organized not merely to teach the student to work effectively with legal materials, but also to indicate other sources of useful knowledge and to familiarize him with the technique of utilizing such knowledge when it is found. In order to accomplish these ends, the subject matter chosen for study should be selected from the

related parts of different fields of knowledge, and so arranged in courses and source books as to indicate the methods by which non-legal materials, as well as legal materials, may be used in the solution of legal problems. Such courses should not only tend towards the development of an improved methodology in legal work, but they should also serve to widen the scope of the student's knowledge thereby affording him a clearer perception of law as a social institution, a better understanding of the factors which have influenced the growth of the law and a greater consciousness of the extent to which its future development may be controlled. Also they should aid in exposing existing fallacies in legal thought and defects in legal devices and in directing attention to ways and means for their correction.

The Faculty has been diligently engaged since 1927 in revising the organization and content of the courses along the lines above indicated. In my last report I described the seven new source books which had been prepared by Professors Berle, Llewellyn, Goebel, Powell, Magill, Medina, and Schiller, for use in the courses on corporation finance, sales, development of legal institutions, future interests and non-commercial trusts, business organization, taxation, civil procedure, and Roman law. During 1930 a considerable quantity of additional materials was prepared. Professors Parkinson, Jacobs, Hanna, Handler, Patterson, Schiller, and Mr. Deák compiled supplementary materials for use in various courses, including the courses on legislation, family law, security, vendor and purchaser, trade regulation, contracts, and comparative law, and Professor Magill began the preparation of an enlarged edition of his materials for the course on business organization. These materials and the source books published in 1929 cover more than half of the undergraduate curriculum.

The arrangement of selected legal and non-legal materials within the courses and source books so as to reveal their interrelation should be helpful to the student in learning how to go about his work intelligently, but obviously the course materials can cover only a limited subject matter.

There are vast areas of law which, because of the limitation of time, must be excluded from the courses. It is within these unexplored areas that the student may try his wings. This is an important part of his training and it is essential to the full development of his intellectual powers that he should make independent investigations and prepare syntheses of his own.

The first step towards providing this experience for the student was the action taken by the Faculty in 1928 whereby the graduate seminars were opened to second and third year students who, by their previous work in the School, had demonstrated their exceptional ability. This action greatly enlarged the opportunities of a limited number of men to engage in original and independent work, but it made no provision for the majority of the students. In the meanwhile, several members of the Faculty have been requiring all the students in their classes to make independent investigations of assigned topics and report their conclusions in written form. The salutary effects of this work upon the students' development became so obvious that during the year just ended the Faculty amended the requirements for graduation so as to permit all second and third year students to receive a limited amount of credit towards the LL.B. degree, by the preparation of satisfactory essays upon assigned topics in connection with any course for which the student is registered. Moreover, the completion of at least two satisfactory essays has been made a condition of graduation. With the view to further encouraging self-education and the acquisition of background and perspective by the student, the requirements for graduation were also amended to provide that students admitted to the School during the academic year 1930-1931 and thereafter shall, in addition to completing the prescribed course work, be required to complete certain assigned readings in law and related fields. In this connection I wish to call attention to a series of introductory lectures on jurisprudence which were given last year by Professor Llewellyn to the entering class. One cannot read these lectures without appreciating the value to the student of supplementing his study of concrete legal problems by devoting some time to a consideration of the law in its broader aspects. In the preparation of these lectures, Professor Llewellyn has made a distinctive contribution to legal education. The lectures have since been published, in tentative form, in order that they may be available to all the students in the School.

It is strange, but nevertheless true, that, with rare exceptions, the American legal scholar has confined his studies to English and American law. This has been partly Comparative due to linguistic difficulties and the inaccessibility of foreign law books. But these difficulties could and, no doubt, would have been overcome long since had it not been for the disdainful attitude of most American lawyers towards the code system which prevails in European countries other than Great Britain. European continental law is commonly regarded as something wholly different from and inferior to the common law. It is assumed that the decisions of the courts are not worthy of serious consideration since there is no rule of precedent such as that upon which the common law system is built. The notion persists that the function of the civil law judge is solely one of interpretation. He, unlike the common law judge, is not concerned with social policy; that is for the legislature. Moreover, the belief that there is little profit to be derived from a study of foreign law has been reinforced by the type of work which has been conducted in some of the American universities under the label of comparative law. Usually these courses have been either courses in comparative theoretical jurisprudence, which had little to do with concrete rules of law under any system, or courses which assayed the futile task of contrasting various systems of law as systems.

When one considers the many similarities in other phases of the culture of the various countries of western Europe and of the United States, it is difficult to believe that the differences in the systems of law which have been developed are as great as is commonly assumed. On the contrary, it would seem that the analogous economic and social developments which have occurred in these various countries would present similar problems of law, and therefore would result in similar developments in legal thought and legal institutions. Of course there are differences in rules and differences in methods of administration and enforcement, just as there are differences between the laws of New York and the laws of New Jersey. If law be regarded merely as a body of rules, then the laws of one country have little to do with the laws of another. On the other hand, if law be regarded as a social institution, it transcends geographical lines and its study becomes a science. As such, the laws of Germany, of France, of Italy, or of Argentina should offer much to the student of law whether he be in London or in New York. In the legal institutions of other countries, the English and American legal scholar has access to the experience of other peoples in dealing with problems which are common to all civilized peoples. Unless there are insuperable obstacles which block the way, surely the law schools of our universities should not longer remain indifferent to these sources of knowledge.

For a number of years, the Library Committee of the Faculty, in collaboration with the Law Librarian and the Director of University Libraries, have been engaged in building up our collections of materials on the laws of other countries. As a result, the library now contains more than 30,000 foreign law books selected principally from the legal literature of European countries. These collections which, at present, surpass the collections found in most of the libraries of those countries, have made it possible to inaugurate at Columbia a new type of comparative law study which, on the basis of the results to date, has served to produce in the minds of an increasing number of the Faculty a wholesome skepticism regarding the ideas prevalent among American lawyers concerning the value of a study of the law developed under the code systems.

These studies have not been studies in comparative legal philosophy nor comparative legal history as such, nor have they consisted of a comparison of broad divisions of the law such as contracts, torts, and property. They have been confined to a rather intensive comparative study of the applications of law to a limited number of concrete situations, paying particular attention to the court decisions in the countries where the code systems prevail. The selection of the initial topics for study has been governed largely by practical considerations such as the extent to which the problems are common to all countries, the simplicity of subject matter, and the availability of members of the Faculty to participate in the work.

During the Winter Session of last year, Mr. Deák offered a seminar dealing with selected topics in the law relative to family property in the United States, France, and Germany. In the spring, Mr. Deák, with the cooperation of Professors Handler and Schiller, conducted a seminar in the law relating to unfair competition and trade-mark protection in the United States, Great Britain, France, Germany, and certain countries in Latin America. The second study will be continued in 1930-1931 and a third will be offered which will consist of a comparative study of Anglo-American law and the laws of France, Germany, and Switzerland with reference to liability for injuries to persons and property through the use of machines, with particular emphasis upon recent developments incident to the use of motor vehicles. A fourth study dealing with certain aspects of procedural law has been projected for the following year. In each instance the statutory and case materials of each country were carefully examined, the principal foreign materials were translated into English, and the combined materials were assembled in the form of source books similar in arrangement to the case books used in the other law courses. There were also included among the materials arranged for use by students, numerous excerpts from commentaries and treatises by foreign writers and other data bearing upon the particular problems.

Approached in this way, judicial reaction appears remarkably alike, whether it be explained as interpretation or by precedent. Under both the common law and the codes, the judges employ similar methods of reasoning, there is the same disparity between what the courts do and what they say that they do, the same lack of analysis in particular

situations, and with changes in economic or other social conditions there follows a departure from earlier generalizations whether they were derived from code sections or from court decisions. Indeed, the similarities between the civil and the common law systems, revealed by the studies which have been made, are more striking than their differences. There are, nevertheless, important differences inherent in basic concepts or administrative devices, but not infrequently the differences are due to dissimilar analyses of the problems under consideration or to variances in judgment regarding the desirability of a particular social policy in view of the conditions, actual or assumed, which are prevalent at the time and place. A knowledge of these differences and of their causes may be of great value to the American jurist because therein he may find a solution to some of his most perplexing problems. In any event, the type of comparative law study in which the Faculty is engaged is sufficiently promising to warrant its continuance until experience demonstrates its value or its uselessness.

One of the most troublesome phases of law school study is the work of the first year. During this period the student forms impressions, attitudes, and habits which largely determine the character and quality of his future work. Consequently, it is of the greatest importance that every effort should be made to improve the work of the first year, not only with regard to the subject matter of the courses but also with regard to teaching methods. It is during this year that the student is in dire need of competent assistance, and therefore sound pedagogical method yields its greatest return.

During several years past the Faculty has been experimenting with the content and arrangement of the first year courses, but not until last year were any efforts made to obtain a thoroughly impartial criticism of the classroom techniques of the various first year teachers. Arrangements were made whereby Mr. Mortimer Adler, then a member of the Department of Psychology of Columbia University, and now Associate Professor of Philosophy at the University of

Chicago, attended all the classes in the first year courses on contracts, torts, and property. Professor Adler endeavored to place himself in the position of the beginning law student by reading the assigned materials and coming to class prepared to derive from the discussions all that they offered the student. In addition, he endeavored to observe the various reactions of the other students, to discover their difficulties, and to ascertain what was happening to them. The purpose of this experiment was to reveal the actual effects upon the students of the materials studied, and of the different pedagogical methods employed by the three professors. Professor Adler has submitted an interesting report which I am confident will be of value to members of the Faculty in their efforts to make more effective the work of the first year.

Since the establishment of the J.D. degree in 1923, the Faculty has devoted considerable thought to the graduate work of the School. From the outset, the award of the degree of *Doctor Juris* has been restricted to candidates

Graduate Work who, in addition to passing their examinations, have prepared and published dissertations of exceptional merit. The Faculty is convinced that the present policy of minimizing the work in courses by graduate students and requiring them to devote the major part of their time to research under the supervision of the Faculty is most effective in promoting original and productive scholarship. However, work of this type cannot be done with the same speed as work in courses. While the rules require only one year of residence, most of the candidates have found it impossible to complete the requirements for the degree in this length of time. Since many of our graduate students are unable to remain in residence for a longer period than one year, the result has been that very few of them have been awarded the J.D. degree. In order to meet this situation, the rules were amended last year to permit a candidate for the J.D. degree who has devoted one academic year of full-time residence work to satisfying the requirements for that degree, and whose work in the opinion of the Faculty promises the satisfactory completion of a dissertation commenced by him during his residence, to qualify for the degree of LL.M. at the end of one year and, in not less than one year, thereafter, without further residence, to complete the requirements for the degree of *Doctor Juris*. It is believed that by thus enabling the candidate to finish his dissertation after the completion of the required year of residence, a larger number of the candidates will be successful and at the same time the high standards heretofore maintained will not be impaired. Also, the provision that candidates for the J.D. degree may, at the end of one year, receive the degree of LL.M., upon compliance with the standards required for that degree, should encourage a larger number of good students, particularly those who are preparing themselves for law teaching positions, to come to Columbia for graduate work.

In June, 1930, the degree of J.D. was awarded to Herman N. Finkelstein. His dissertation on Legal Aspects of Commercial Letters of Credit has been published by the Columbia University Press as the second volume of "Columbia Legal Studies." The first volume of this series was The Historical Foundations of the Law Relating to Trade-Marks published in 1925 by Frank I. Schechter, the first recipient of the degree of Doctor Juris. In this connection, I wish to call attention to the heavy printing costs involved in the publication of dissertations. Not infrequently the cost of publication prevents meritorious candidates of small means from obtaining the degree. With the view to providing financial aid for such candidates, a publication fund was started last year by a gift from Mr. Henry W. Pollock, an alumnus of the School.

I am glad to be able to report that during last year there was a noticeable increase in the number of applicants for admission as graduate students. Seven University Fellowships, in addition to the Augustus Newbold Morris Fellowship, have been awarded to applicants who will enter the School in September, 1930, as candidates for the J.D. degree. These men were selected from a group of twenty-three applicants all of whom had graduated with high rank from the various law schools from which they came. Each of the eight men who was awarded a fellowship was either an editor of the

Law Review in his institution or a member of the Order of the Coif.

The kind and quality of work which a law school can do are conditioned by the capacities of the students as well as by the abilities of the Faculty. The improvements in legal Student education which are contemplated are not likely to Body be realized if large numbers of men are admitted to the School who are incapable of complying with existing requirements to say nothing of more exacting standards. During the last three years special efforts have been made to improve the quality of the student body by attracting to the School a larger number of able men from all sections of the country and by limiting admission to a selected group chosen on the basis of their fitness to comply with the standards of the School. The selective process has resulted in a reduction in the number of registered students from 815 in 1927-1928 to 600 in 1929-1930. On the other hand, the average ability of the student body has been materially raised. In 1927-1928, 352 of the unselected class of 386 completed the work of the first year. Of this number, 146 failed to maintain the average grade required for continuance in the School. In 1928-1929. 213 of the first selected class of 235 completed the work of the first year. Of this number, 50 failed to maintain the required average grade. In 1929-1930, 188 of the second selected class of 212 completed the work of the first year. Of this number, 43 failed to maintain the required average grade. Thus, the scholastic casualties in the first year were reduced from 41.5 per cent in 1927-1928 to 21.8 per cent in 1929-1930, representing a proportional decrease in casualties of 47.4 per cent. While the selective process will never entirely prevent failures, it has already reduced the number of first year failures from 146 in 1927-1928 to 43 in 1929-1930 and, with the improvement of the methods of selection which is taking place with each year of experience, it is expected that the number will be further reduced.

Beginning with the academic year 1930–1931, the entire student body will consist of men admitted under the selective process. Already the improvement in the quality of work done is quite noticeable. In addition, the exclusion of the large number of applicants not qualified to do satisfactory work has tended to bring about an intellectual homogeneity in the student body which has resulted in better morale and greater enthusiasm for the School.

The registration during the year was as follows:

Graduate students								10
Third year—Class of 1930								189
Second year—Class of 1931	i							180
First year—Class of 1932								212
Non-matriculated students								9
Summer Session, 1929	•							 600 134
Less duplications								734 60
Net Total								674

During the year the degree of LL.B. was awarded to 179 candidates. The degree of LL.M. was awarded to two candidates. The degree of J.D. was awarded to one candidate.

Notwithstanding the steady increase during the last three years in the number of students coming from distant parts of the country, the majority of the students are residents of New York and adjoining states. Because of the location of the School this may always be so. Nevertheless, it is important that there should be included in the student body a substantial number of men who intend to practice in other sections of the country. It is largely through its graduates that the School may exert an influence upon professional thought. Consequently, a wide geographical distribution of the alumni is essential if this influence is to extend to the American bar as a whole.

Every effort is being made to build up a student body more national in character. During last year various members of the Faculty visited the alumni clubs in different sections of the country and explained the developments which are taking place in the School and the unusual opportunities thereby afforded for professional training. These meetings were held in Philadelphia, Baltimore, Washington, Atlanta, New Orleans, Pittsburgh, Chicago, Cincinnati, St. Louis, Kansas City, Little Rock, and Dallas. As a consequence, several excellent young men are entering the School in September who were sent to us by the clubs. Not only can the alumni throughout the country be of great aid in building up the student body, but they can also render valuable assistance in placing the graduates of the School who desire to practice outside of New York.

The substantial increase in the appropriations for scholarships made in 1928, and continued during 1929 and 1930, has aided materially in attracting to the School able students of moderate means from various sections of the country. There are at present 82 students receiving scholarship aid. Included in this group are residents of 25 states and 2 foreign countries. Without scholarship aid, most of these men, particularly those from the South and West, would have been unable to come to Columbia for their legal education.

During the year, 8,352 volumes were added to the law library, bringing the total collection to 155,986 volumes. Special efforts were made to add to the Latin-American materials in order that they may be comparable to the present excellent collections of foreign law books chosen from the legal literature of European countries. Through the courtesy of Professor Alfredo Colmo, President of the Civil Court of Appeals of Buenos Aires, we were able to obtain a representative collection of the laws, reports, and legal periodicals of Argentina. We were also fortunate in obtaining the promise of Mr. Dwight W. Morrow, an alumnus of Columbia Law School, to aid in completing our Mexican collection.

After thirty-five years of active service, Professor George F. Canfield was granted a leave of absence during last year and, upon his request, was relieved of his academic duties on June 30, 1930. The action of the Trustees in conferring upon him the title of Professor Emeritus was a fitting recognition of his long and useful service to the University. Professor

Canfield first became identified with the School in 1892 as an Instructor in Law. He was appointed to the Faculty of Law in 1894. In 1922 he was appointed Dwight Professor of Law. As an expression of their esteem and affection, the alumni of the School arranged a luncheon last spring in his honor. This gathering of his former pupils was the occasion of an impressive address by Professor Canfield in which he gave an interesting account of the School during the various stages of its development from the time of Dean Keener to the present day.

I regret to report the resignation of Mr. John L. Grant, Associate in Law, who since 1927 has been Assistant to the Dean. In addition to his effective administrative work, Mr. Grant made a valuable contribution to the School through his exhaustive study of the grading system which was discussed in my last report.

By action of the Trustees, effective July 1, 1930, the Betts Professorship of Jurisprudence was established in memory of William Betts, of the Class of 1820, who, following James Kent, was Professor of Law in Columbia College from 1848 to 1854, who was a distinguished leader of the New York Bar for half a century, and who for forty-two years (1842–1884) was a Trustee of the University, taking active part in the establishment of a separate School of Law in 1858 and the calling of Theodore W. Dwight to be its Dean. The first incumbent of this professorship is Karl N. Llewellyn. At the same time, the following members of the Faculty were appointed to the previously established named professorships in law: Richard R. Powell to be Dwight Professor of Law; Noel T. Dowling to be Nash Professor of Law; Young B. Smith to be Kent Professor of Law.

Two appointments were made to the Faculty of Law during the year. James P. Gifford, the son of the late Professor Ralph W. Gifford, was appointed Assistant Professor of Law and Assistant to the Dean, and A. Arthur Schiller, formerly Lecturer in Law, was appointed Assistant Professor of Law.

Professor Gifford received the degree of A.B. from Harvard College in 1914. He attended Harvard Law School during

1914–1915. After service in the Army, he transferred to Columbia Law School in the spring of 1919. He was elected an editor of the *Columbia Law Review* in the fall of 1920. Because of illness he was compelled to postpone the completion of the requirements for the LL.B. degree until 1925. He was admitted to the New York bar in 1926. From 1926 to 1930 he was associated in practice with the law firm of Sullivan & Cromwell in New York City. During the spring of 1930 he assisted Professor Tulin with the course on criminal law.

Professor Schiller received from the University of California the degree of A.B. in 1924, of A.M. and of J.D. in 1926 at which time he was admitted to the State Bar of California. He entered Columbia Law School in 1926 as a University Fellow and in 1927–1928 acted as Research Assistant. He was appointed Lecturer in Law for the Spring Sessions of 1928–1929 and 1929–1930. Professor Schiller was in Berlin and Munich during the Winter Session of 1929–1930, where he was engaged in research in the fields of Roman law and Egyptology.

Notwithstanding the loss, during the last decade, of the group of distinguished teachers and scholars who are identified with the School in the minds of the older alumni, the present Faculty, twenty-six in number, are well qualified to maintain the high standards of scholarship established by their predecessors. On the whole the School is moving forward with increasing effectiveness. The pioneer work in which it is engaged is significant in that it reflects a recognition of existing defects in legal education, in law, and in the administration of justice, and a desire to make the University a more useful agency in bringing about improvement.

Respectfully submitted,

Young B. Smith,

Dean

June 30, 1930

SCHOOL OF MEDICINE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

Iosophina R. Noal

I have the honor to submit the following report of the work at the College of Physicians and Surgeons for the year ending June 30, 1930:

ENROLLMENT

Four hundred and twenty-three students registered for the courses leading to the M.D. degree. There were 115 first year students, 102 second year, 102 third year, and 104 fourth year, with 10 non-candidates. There were 48 registrants in the various departments of the School of Medicine under the Faculties of Pure Science, of whom 15 were working for the Master's degree, 17 for that of Doctor of Philosophy, and 16 were special students. In the courses for graduates in Medicine, there were 188 students.

CHANGES IN STAFF

NEW APPOINTMENTS

Clinical Professor of Neurology

Josephine D. Iteal .	-		Chinear Froiessor of Treatology
Claus W. Jungeblut			Associate Professor of Bacteriology
William R. Torgerson			Associate Professor of Tropical Medicine
Kenneth S. Cole			Assistant Professor of Physiology
Hans Smetana			Assistant Professor of Pathology
Warren M. Sperry .			Assistant Professor of Biological Chemistry
Oskar Wintersteiner			Assistant Professor of Biological Chemistry
James L. Joughin			Assistant Clinical Professor of Neurology

PROMOTIONS

1929-1930

J. Ramsay Hunt				Professor of Clinical Neurology
Albert R. Lamb				Professor of Clinical Medicine

Walter Timme Professor of Clinical Neurology
Leland E. Hinsie Clinical Professor of Psychiatry
Ward A. Holden Clinical Professor of Ophthalmology
Robert B. McGraw Clinical Professor of Psychiatry
Howard W. Potter Clinical Professor of Psychiatry
Earl T. Engle Associate Professor of Anatomy
Frederick B. Flinn Associate Professor of Physiology
Bern B. Gallaudet Associate Professor of Anatomy
Ross Golden Associate Professor of Medicine
Antonio Fernos Isern Associate Professor of Hygiene
George Draper Associate Professor of Clinical Medicine
David C. Bull Assistant Professor of Surgery
Franklin M. Hanger, Jr Assistant Professor of Medicine
Michael G. Mulinos Assistant Professor of Pharmacology
Joshua Rosett Assistant Professor of Neurology
Walter P. Anderton Assistant Professor of Clinical Medicine
Charles A. McKendree Assistant Professor of Clinical Neurology
Martin DeF. Smith Assistant Professor of Clinical Medicine
C. Burns Craig Assistant Clinical Professor of Neurology
D. Stuart D. Jessup Assistant Clinical Professor of Medicine

RESIGNATIONS

1929-1930

Charles N. Dowd	Professor of Clinical Surgery
Charles Hendee Smith	Professor of Clinical Diseases of Children
Philip Van Ingen	Clinical Professor of Diseases of Children

The sudden death in Cairo of Dr. C. Floyd Haviland on January 1, 1930, took from American psychiatry one of its cherished leaders and from Columbia University a teacher of promise. For his friends the loss is deeper. Dr. Haviland was born in Spencertown, New York, on May 15, 1875, the son of a physician. He entered the service of the New York State Hospitals in 1897 and continued in that work until the time of his death. In 1921 he became the Chairman of the State Hospital Commission. During his tenure of office two most important events occurred. One was the change from the State Hospital Commission to the Department of Mental Hygiene. The second was the removal of the New York State Psychiatric Institute from Ward's Island to a plot of ground on the Medical Center where it is now housed with a branch of the State Psychiatric Hospital group. Although

the original force behind this move was the late Professor Salmon, Dr. Haviland was largely responsible for bringing it about and it stands today as a memorial of his earnest endeavors. Dr. Haviland's association with the School dates back to the last century, as in the later nineties and early nineteen hundreds he was a member of the staff of the Vanderbilt Clinic. His untimely death has taken from the College one of its wisest advisers and most enthusiastic, efficient workers in this field.

CLINICAL DEPARTMENTS

The development of clinical departments along academic lines has been one of the most important of the recent changes in medical education. Experience at the College of Physicians and Surgeons has proved its great value not only to medical education but also to the care of the sick and to the increase in medical knowledge. By academic lines, or full time, is meant that the dominating group of men in these clinical departments must be free to concentrate their energies on their university and hospital duties. It is believed best that they should be able to care for private patients in the hospital, both in the office and private rooms, but such private practice should be so limited as not to interfere with "the thorough, efficient, and earnest fulfillment of their academic duties" as prescribed by the Statutes of the University. It is also believed essential to have men associated with them in the department who are not on the academic basis but continue to practice outside the institution.

The essential factors in such a department are: (1) men with the training, qualities, and experience necessary for such positions who are sufficiently eager for an academic life to make them willingly forego the larger incomes of more extensive private practice; (2) a hospital with sufficient clinical material and equipment whose staff are appointed on university nomination; (3) sufficient laboratory and other facilities for scientific investigation; (4) funds sufficient to maintain the scientific work of the department and to provide salaries

which will not only attract but satisfy the type of men necessary to maintain high standards of care of the sick, teaching, and investigation. All four of these factors are essential. Without any one the plan cannot succeed.

A number of different modifications of academic organizations are in effect in the different medical schools. Several have been tried here. There are two which have proved successful. Both are full time as far as service is concerned. In both, the men limit their private practice to the offices and private wards of the hospital, except for well-recognized emergencies or exceptional circumstances. In both the exact amount of private work is adjusted by the individual who is always subject to control by higher administrative authority. The man himself can decide more wisely and more happily, and it must always be more a matter of spirit than of law. With the right man, outside control is unnecessary. With the wrong man it is unavailing. In one type of organization (the so-called "extreme full time") the funds received from private cases are collected by the hospital and used for scientific purposes and the man receives in addition to the usual university salary an additional compensation which should be sufficient to let him live without anxiety for his family. In the second type of organization the individual, living on a similar schedule and doing a similar amount of private work, receives the usual university salary and collects his own fees from his private patients.

There is considerable disagreement today among those interested as to which method is the more desirable, both for the present and for the future. It is evident that great progress has been made under both plans. It is fair to say that both plans are good.

For the past six years, the College of Physicians and Surgeons has been working under the following policy with good results and with satisfaction to those concerned. The Departments of Medicine and Surgery have been, and are, under the direction of men who are confining their work to the School and hospital. They have limited their private work to an amount which they find does not interfere with the thor-

ough, efficient, and earnest fulfillment of their academic duties. Whether they should work under the extreme type of full time or the modified type has been considered only of importance as one or the other made it possible for them to do their best work. It is a means to an end. The factors most essential to the success of a clinical department are the character, ability, and personality of the head of the department and his staff. In order to attract and hold such men a university must be free to adjust living and working conditions to the peculiar needs of the individual as far as finances permit. Therefore it is the policy here not to demand that certain positions or certain individuals must be on one or the other type of full time but rather that they render full service and in order to make this latter possible, to adjust their conditions to their needs.

After a few years of limited direct private practice the head of the Department of Medicine decided that he and several of his associates could do better work and with less anxiety, under the more extreme plan. Financial aid was found, making it possible to pay them salaries higher than the usual University rates and they voluntarily transferred to the hospital the right to charge their private patients.

In surgery the other plan has been in effect to date and the head of the Department has been able to confine his practice so that it has not interfered with his academic and hospital duties. One important difference between medical and surgical practice exists. It has been found that a satisfactory increment to the University salary can be earned in surgery with far less time and energy than in medicine. This is due to the fact that the public expects to, and does, pay larger fees for operative treatment. It is more a difference in individuals, though, and each instance must be decided on its own merits. Certain men can work more successfully and more contentedly on the extreme basis and others on the modified form. The University in filling positions must be free to adopt either plan or any other modification which makes it possible for men to render better service to both School and hospital.

The Professor of Surgery now has voluntarily expressed his wish to change to the extreme full-time basis and the necessary funds have been made available. At the beginning of the next session, July 1, 1930, Professor Whipple and three other members of his staff will make the change to the extreme type of full time.

The opportunity to develop the Department of Diseases of Children on an academic basis is now at hand. With the opening of the Babies' Hospital at the Medical Center, the clinical and laboratory facilities are available. The Trustees have made a generous increase in the School budget and a special gift for this purpose has been received. This has made it possible to appoint Dr. Rustin McIntosh as Professor of Diseases of Children. He will spend the coming year in further study and in assembling a staff, ready to assume active duties in July, 1931. It is sincerely hoped that by that time additional endowment will be available to make further expansion. Dr. McIntosh and the Babies' Hospital are not strangers as he was on the staff first as resident and later as an assistant attending physician for a number of years. Three years ago he decided to give up practice to devote his time to academic work and has been working with Professor Park at Johns Hopkins during this period.

Too much credit cannot be given to Professor Wilcox for the admirable way he and his staff have carried on the work of the Department since the resignation of Professor Holt in 1921. With a budget which necessitated carrying on an extensive teaching program at the Babies' and Bellevue Hospitals almost entirely by part-time men, they have not only provided most satisfactory teaching to both third and fourth year students but have been able to add a great deal to the literature of their field. Professor Wilcox has been constant in urging the development of an academic department and most influential in getting it started. His loyal and efficient service has been one of the great contributions to the School and it is earnestly hoped that he will continue to share in the work for many years to come.

DEPARTMENTAL REPORTS

DEPARTMENT OF ANATOMY

The Department has continued to make internal changes to meet the increased needs for scientific investigation. The staff has consisted of eleven full-time members who have devoted their entire time to teaching and research. Fourteen part-time instructors have given valuable assistance in the teaching duties of the Department. The staff has been strengthened by the appointment of Dr. C. M. Goss of the Yale School of Medicine. Dr. Severinghaus has been promoted from Associate to Assistant Professor. Dr. Edward Singer, formerly of the Anatomical Laboratory at Zurich has been appointed as Instructor.

Courses offered in the Department with the attendance are listed as follows:

	Students					
Courses	Medical	Dental	Graduate			
Gross anatomy	107	56	6			
Microscopic anatomy	111	56	3			
Embryology	90		4			
Topographic and applied anatomy	60		İ			
Endocrinology	6		I			
Causal morphology	I		3			

During the past year Professor Smith has reorganized the entire microscopic slide collection, making many replacements and such additions as to put the loan sets in very satisfactory condition.

The arrangement of time allotted to the course in gross anatomy according to the present curriculum has been an important factor toward the success of this year's work on the subject. It has permitted a most desirable correlation with the work in histology during the first trimester and with neurology during the second.

Furthermore, the changes in teaching methods which were begun last year and to which reference was made in the previous annual report, seem to have been thoroughly justified and to have demonstrated their value. The results were accomplished by reason of the enthusiastic and interested coöperation of all members of the staff, all of whom have contributed special demonstrations along lines in which they are particularly interested scientifically. This phase will be further developed during the coming year.

Appreciation is here expressed of the cordial manner in which members of clinical departments have responded by giving talks on the clinical application of anatomical studies. These talks have proved to be very

helpful and stimulating to the students, contributing to the interest and diligence which the class have maintained toward their work in anatomy throughout the year.

Eight prosectors made selected dissections for wax models which are being made especially for teaching purposes. The construction of these and other models is in care of Mr. Carl Kellner, *preparateur*, who also is in charge of the Anatomical Museum.

The number of students applying for Dr. Gallaudet's course in special and topographic anatomy has been so great that the course has had to be given in two parallel sections as the facilities of the Department made it impossible to give the course to a single group. Dr. Gallaudet's willingness to give the course twice is a matter which is greatly appreciated by the Department and students.

On February 11, 1930, the Department celebrated the seventieth birthday of Professor Gallaudet, who for forty-three years has been a member of the Anatomy staff. A banquet was held at the Faculty Club and was enthusiastically attended by the entire Department. Dean Darrach, who was invited as guest, spoke very warmly and commendably upon the long and faithful years of service rendered by Dr. Gallaudet to the College of Physicians and Surgeons. The splendid spirit characterizing this occasion represented an expression of the affection and loyal friendship which the present Department feels for both Dr. and Mrs. Gallaudet.

A course in surgical anatomy for third year students has been started during the spring trimester under the direction of Dr. Carnes Weeks with Dr. Mueller as assistant. Places in this course have been so eagerly sought, that plans are being made to repeat it four times during the coming year, thereby allowing each section of the third year class to have the benefit of this work.

Embryology was offered as a voluntary course meeting once a week during the first trimester, and was enthusiastically attended by an average of ninety students coming chiefly from the first and second years.

The course in dental histology has been placed in the hands of Professor Severinghaus, who, with the assistance of Dr. Carpenter, has offered a most satisfactory course. New plans have been inaugurated to raise the standard of instruction in the dental gross anatomy.

A new graduate course in descriptive and experimental cytology has been developed by Dr. Severinghaus and Dr. Goss. The addition of this course to the research courses already offered provides for a wide range in the selection of problems by graduate students who enter the Department for advanced degrees.

Research

Causal Morphology

Five members of the Department and three graduate students are working in the field of experimental morphology. The main problems are concerned with the dynamics of the development of the central and peripheral nervous system, although other problems dealing with developmental physiology are being studied. This type of investigation is being carried out by means of tissue grafting in the embryo.

Dr. Detwiler is carrying out experiments in spinal cord grafting between animals of different species, and also experiments dealing with the relationship of developing muscle to the formation and differentiation of spinal ganglia. Problems dealing with the reactions of the developing mammal

retina to light are being investigated.

Dr. Copenhaver is grafting heart rudiments between animals of different species with a view of studying the behavior of the developing heteroplastic hearts under conditions of normal innervation, abnormal innervation, and no innervation. The action of drugs is also being studied. Further experiments are being carried out on the heteroplastic transplantation of liver rudiments.

Dr. Severinghaus is studying chiefly the matter of cellular proliferation in heterotopic spinal cord grafts with a view to a better understanding of the forces responsible for cellular proliferation and differentiation in the

normal developing cord.

Dr. Rogers is continuing his experiments upon the hyperinnervation of developing skeletal muscle, by means of grafting supernumerary spinal cords. In the field of comparative morphology he is studying the development of the human tonsil during embryonic, fetal, and infantile life.

Dr. Carpenter is continuing his program on limb transplantation in connection with problems of sensory nerve development. He is also studying experimentally the development of the crossed extension mechanism in limb movements, as well as problems in the development of nerve muscle specificity.

Cytology

Dr. Goss has been applying the methods of microdissection and tissue culture to cytology. He is studying the factors responsible for changes in the morphology and activity of living white blood cells by observing their reactions under experiment conditions and by correlating these changes with alterations of the various intracellular constituents by means of microdissection. In order to extend the same methods to other types of cells, he has organized the facilities necessary for tissue culture and has begun the study of connective tissue and muscle cells.

Dr. Severinghaus with Dr. Stunkard of New York University is carrying on chromosomal studies in American Schistosomes. Dr. Severinghaus

is also engaged with other cytological problems.

Physical Anthropology

During the past year, work in physical anthropology has largely been of a preparatory nature. The African expedition has proved to have been a successful venture in that we now possess two adult male bodies of Belgian Congo gorillas (Gorilla beringei) and other material, including abundant

data on foot studies of African natives. Mr. Raven is still in French Equatorial Africa where he has procured one adult gorilla (*Gorilla gorilla*) and expects to obtain two others before his return.

Dr. E. T. Engle, representative of the Department on the expedition, unfortunately contracted a severe illness during the latter part of his stay in Africa, which necessitated hospital care upon his return and also a temporary leave of absence. The sacrifice which Dr. Engle has made for the success of the African Expedition has been a source of anxiety, and the cessation of his activities in the laboratory for a year has been felt by the entire Department.

Certain minor phases of study on the African material have already been started. Plans and preparation are being developed, however, for the real work to be launched with the opening of the next college term when it is expected that Mr. Raven will have returned with the rest of the material collected in Africa.

Analysis of the mechanics of the human foot has been further carried on by Dr. Morton, particularly in regard to certain structural variations which bear relation to the common static disorders. For this purpose, instruments have been devised which register the relative distribution of body weight upon different portions of the foot, and other pertinent characters, such as angle of gait, muscle strength, etc.

Acknowledgment is made of the interested coöperation extended by Dr. Ross Golden of the X-ray department (Presbyterian Hospital) toward this investigation. The studies have resulted in findings that lead to more concrete knowledge of foot disorders, and also have important clinical value.

Endocrinology

Due to the absence of Dr. Engle, the management and responsibility of the animal colony have devolved entirely upon Dr. Smith.

Studies have been continued by Dr. Smith upon the function of the hypophysis with particular regard to its influence on and interrelationship with the reproductive organs and other endocrine organs. It has been found that the amount of the growth hormone present in the anterior hypophysis is not decreased by thyroidectomy and that in the absence of the thyroid the growth stimulus from pituitary administration is less than when the thyroid is present, findings which indicate that the thyroid even though it may not itself secrete a growth-promoting hormone, plays a rôle in the utilization of such a hormone secreted by the anterior hypophysis.

It has been found that the thymus after pituitary ablation undergoes a more rapid involution than in the normal animal. This finding is of interest largely because, after hypophysectomy, the reproductive system fails to develop, a failure which usually results in a persistence of the thymus. Other factors, the influence of which have been analysed, overcome the thymic stimulation afforded by the infantilism resulting from pituitary removal.

Thyroidectomy has been found by Dr. Engle and Dr. Smith not to influence the pituitary content of the follicular-stimulating hormone.

Dr. Smith and Dr. MacDowell of the Carnegie Institute for Experimental Evolution are collaborating in a problem of particular interest upon a strain of mice in which dwarfism, which follows a recessive Mendelian ratio, appears upon the fourteenth to the fifteenth day of life. Growth which is normal up to this time then abruptly ceases and is not resumed for the remainder of the life span. Glandular disabilities develop which appear to be identical with those displayed by hypophysectomized rats. The administration of pituitary but not of other endocrine substances causes a resumption of growth, induces development of the reproductive system with fertility, and restores the animal to a normal condition. It appears that probably for the first time there has been established a direct influence of a gene upon one of the endocrine glands, namely the hypophysis, which results in its breakdown and leads to a group of disabilities identical with those produced by experimental surgery and those seen in clinical cases of hypopituitarism.

The work of Drs. Smith and Engle has received financial assistance from the Committee for Research in Problems of Sex of the National Research Council.

Dr. Zwemer is investigating various phases of adrenal insufficiency. In collaboration with Dr. Krasnow of the Department of Biological Chemistry, he is following the changes in blood lipoids after adrenal removal. Simultaneously, with Dr. Sullivan of Babies' Hospital, the electrolytes and carbon dioxide combining power of the blood are being determined. With the aid of four medical students, Dr. Zwemer is studying also the results of prolonged experimental adrenal insufficiency, excess thyroid administration, and the changes in the adrenal cortex following injections of various toxins. An experimental analysis of physiological leucocytosis is being continued.

Physiology of Reproduction

Dr. Engle's research program on the physiology of mammalian reproduction has been temporarily suspended owing to his eight months' trip to Africa in the interests of the anthropological developments of the Department.

The greatest need consists of space for housing monkeys. It becomes highly important that the endocrine and sex studies by Drs. Smith and Engle be extended to the primates. The lack of housing facilities for this purpose is regarded as a serious handicap to the success of the most important of the laboratory's scientific activities.

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DEPARTMENT OF BACTERIOLOGY

Two additions have been made to the staff during the current year, both of which are financed through special research funds obtained from sources outside the University. Dr. Claus Jungeblut, Associate Professor

from Stanford University Medical School has joined the staff to work on the problem of experimental poliomyelitis supported by the Milbank Fund. Dr. Theodor Rosebury, formerly Gies Fellow in dental research, has become a member of the unit engaged in studying the etiology of dental caries. Dr. Beatrice Carrier Seegal and Dr. Elizabeth Hazen have interchanged positions, the former being now the resident bacteriologist. Both are instructors in the Department.

In the Diagnostic Service no increase in staff has taken place since last year and only a few minor changes in personnel have occurred. The number of bacteriological examinations and of Wassermann reactions carried out in this division of the Department is somewhat smaller than during the preceding year, namely an average of 912 bacteriological examinations a month, and of 1,870 Wassermann reactions a month. This division continues to offer facilities of diagnosis to additional units in the Medical Center, but no additional units have requested this service during the past year.

No notable change has taken place in the teaching during the past year. A new edition of the Laboratory Manual has been provided for the students and there is in preparation a textbook to cover the field of bacteriology and immunology which is projected along a line of greater completeness than any in existence. The day of the one-man textbook in this field, as in many others, is passed, and yet the collaborated textbook by authorities in various parts of the country has many disadvantages. A compromise is being planned to include the advantages derived from the two methods of treatment by presenting a book contributed by seven or eight members of the Department, each of whom has specialized knowledge and training in one or more of the numerous subdivisions of the subject. It was gratifying to find that in only one field, namely the fungi, the Department had no proficient expert. Fortunately Dr. Hopkins, whose work in this subject is well recognized, will supply this deficiency. The book will have other novel features which, it is believed, will make it valuable.

During the past year the Ph.D degree has been granted to two candidates. This brings the total number of such degrees granted since the year 1914, through the Department, to sixteen, six of which have been granted in the last four years. There are at present ten candidates for the Ph.D degree in various stages of preparation. There have been six candidates for the A.M. degree in Bacteriology during the current year, and last year four such degrees were granted.

A seminar has been held weekly throughout the greater portion of the year. These meetings are open to graduate students and investigators in both this and other departments. The attendance has grown markedly so as to reach from thirty to forty at each meeting. The subjects presented are for the most part reports on investigations in progress or recently completed by members of the staff and students and occasionally by other workers in the field of bacteriology in other departments.

Research

Research continues to occupy the major energy of all members of the Department and in addition to the regular staff, all of whom are actively engaged in investigation, a number of specialized workers supported by various research funds are at work. Nearly all such workers, whether or not under staff appointment, take some part in the teaching when their problem bears directly upon matters that can properly be brought to the attention of the regular student body.

Although the University funds suffice to support considerable research work, additional support from a number of special funds is still enjoyed both for salaries and materials. These special funds are: the Milbank Fund for the study of poliomyelitis, the Wood Fund and the Matheson Fund for the study of encephalitis, the Commonwealth Fund for the study of dental caries, the Friedman Fund for investigation in tuberculosis, the Simon Baruch Fund for the study of pneumonia, and material aid in salary and facilities by the Boyce Thompson Institute for Plant Diseases. The problems under investigation may be briefly summarized as follows:

Studies on the rôle of cells in enhancing natural resistance and passive immunity (Gay, Clark, Hoyt, Conrad).

Tissue resistance to Vibrion Septique (Humphries and Hazen). Studies on the neurotropic viruses:

Poliomyelitis (Jungeblut, Thompson, Oram).

Rabies (Hoyt).

Herpes-Encephalitis (Gay and Holden).

Vaccinia (Thompson and Buchbinder).

The toxicity of homologous brain extract (Gay, Hoyt, and Seegal).

Methods of immunizing against the pneumococcus (Curphey and Conrad).

Oxidation reduction processes by bacteria (Coulter and Stone).

Spectrophotometric analysis of cytochrome and porphyrin derivatives in bacteria and bacterial toxins (Coulter and Stone).

Saponin and digitonin solubility of the pneumococcus (Stone and Klein).

The blood chemistry of trypanosome infections (Linton and Poindexter).

The Ramon flocculation test of diphtheria toxin (Hazen).

Local organ hypersusceptibility, the relation of the adrenals to Anaphylaxis (Seegal).

Bacterial variation (Ingalls).

The mechanism of the bacterial precipitin reaction (McVickar).

Dissociation of the Welch bacillus (Humphreys).

Experimental tuberculosis as affected by diet and the adrenals (Steinbach).

Experimental dental caries. (Thompson and Rosebury).

The antigenic properties of the mosaic disease viruses of plants (Beale).

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DEPARTMENT OF BIOLOGICAL CHEMISTRY

The Department of Biological Chemistry has been in its new quarters nearly two years. During the past year very little in the way of permanent equipment has had to be added, owing to the adequate provision made possible through the generosity of the Chemical Foundation. The only major addition at present contemplated is the installation of a large-scale laboratory intended for the general use of the entire School.

Instruction in biological chemistry has been given to 114 first year students of medicine, to 56 students of dentistry, and to 17 graduate students of whom six were major candidates for the Ph.D. degree. Of these last, two are presenting theses in partial fulfillment of the requirements for the Ph.D. degree. The Department has also given facilities in its laboratories to eight special workers.

Professor Gies has continued in charge of the Carnegie Foundation's study of dental education. He has acted as Chairman of the Dental Advisory Board of the New York City Department of Health, of the Research Council of the New York Academy of Dentistry, of the Carnegie Corporation's Advisory Committee on Dental School Libraries, of the Committee on Education, Research, and Relations of the American College of Dentists; as general secretary of the International Association for Dental Research, of the subcommittee of the Guggenheim Dental Clinic for the School of Dental Hygienists, of a subcommittee of the Oral Hygiene Committee of Greater New York for the preparation of a book on the practice of preventive dentistry and researches needed to promote it. He is also a member of the Committee of the American Association of Dental Schools to obtain

funds for the support of a study of the dental curriculum, of the Executive Committee of the Guggenheim Dental Clinic, of the Oral Hygiene Committee of Greater New York, and of the Committee on Community Dental Service of the New York Tuberculosis and Health Association. Dr. Gies has also continued as Editor of the Journal of Dental Research.

Dr. Clarke has served as the Associate Editor of the *Journal of the American Chemical Society*, and on the editorial committees of *Organic Syntheses* and the *Journal of Biological Chemistry*.

Practically the entire cost of the research work carried out by the Department has been borne by the annual gift of twenty thousand dollars from the Chemical Foundation, this year constituting the second of the five years for which this generous contribution has been granted. In continuation of the policy laid down last year, a certain proportion of this fund has been expended for the purchase of chemical journals for the general library of the School.

Several additions to the biochemical group at the Medical Center have been arranged during this session. The Department has long felt the need for a highly trained physical chemist on its staff, and has now been fortunate in securing the services of Dr. Crawford F. Failey who is to join the Department as Assistant Professor at the beginning of the coming session. Dr. Failey's training in physical chemistry was received in the laboratory of Professor G. N. Lewis, the acknowledged leader in America in this branch of science. After conducting researches in pure physical chemistry in California, Dr. Failey spent a year with Professor Embden, the eminent German biochemist, and during the past year, has been associated with Dr. John J. Abel in Baltimore. Close coöperation is anticipated with the newly appointed chemical directors in Babies' Hospital and in the Psychiatric Institute, Drs. Warren M. Sperry and Erwin Brand. Dr. Sperry has joined the staff at Babies' Hospital with the academic appointment of Assistant Professor of Biological Chemistry. The appointment of Dr. Isidor Greenwald as Assistant Professor in Biological Chemistry, assigned to the School of Dental and Oral Surgery, was also arranged, but in view of his call to the Medical School of New York University this appointment of Dr. Greenwald will have to be abandoned.

Research has been actively conducted by all members of the Department. Dr. Gies is continuing his investigations on the proteins and enzymes in dental enamel and on "ionization" in the treatment of dental infection.

Dr. Clark has, in collaboration with Dr. Inouye continued the study of the alkaline decomposition of cystine. He is also directing investigations on the chemistry of the non-cystine sulphur of certain proteins and on the chemical nature of glutose; on the distribution of ergosterol in the human body, with special reference to the skin; on the determination of the blood volume (in collaboration with the Department of Gynecology and Obstetrics) and on the distribution of ingested bromides (in collaboration with the Department of Dermatology).

Dr. Miller has undertaken a histo-chemical study of mucin. He is also engaged in work on the hydrogen ion activity of the contents of the intestinal tract, and has again taken up, with Dr. Kurzrok, studies in the biochemistry of semen.

Dr. Foster has demonstrated the presence in thyroidglobulin of a considerable proportion of diiodotyrosine and, in collaboration with Dr. A. B. Gutman of the Department of Medicine, has concluded an investigation on the fate of the latter compound when ingested. He is also, in collaboration with the Department of Anatomy, investigating the basal metabolism of hypophysectomized and thyroidectomized animals, and directing an investigation of iodine metabolism in relation to ovarian function.

Dr. Karshan has continued his investigations of the influence of nutrition upon bones and teeth. Dr. Wintersteiner, besides organizing a laboratory for micro-analysis, and giving instruction therein, is investigating the chemical reactions of crystalline insulin. Dr. Krasnow has continued her study of the relation of blood lipoids to syphilis and other pathological conditions.

Dr. Kurzrok has continued the investigation of the chemical nature of the female sex hormone, the Aschheim-Zondek test for pregnancy, and the artificial production of temporary sterility by intravaginal injection of seminal protein.

Miss Goettsch is conducting an extensive investigation of the effect of diet on reproduction, in the course of which she has discovered a new type of dystrophy of the voluntary muscle induced by the withdrawal of vitamin E from the diet. In this study she has been fortunate in securing the collaboration of Dr. Pappenheimer of the Department of Pathology. Miss Rivkin has undertaken a study of the diffusable and nondiffusable blood calcium in relation to rickets.

Owing to the resignation of Dr. Rosebury, on his appointment to the staff of the Department of Bacteriology, the William J. Gies Fellowship has been awarded for the remainder of the session to Dr. Victor Ross who is carrying on a study of oral immunization against the pneumococcus.

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DEPARTMENT OF DERMATOLOGY

Several developments during the past year have enabled the Department of Dermatology to extend the scope of its work. Most important was the establishment of a laboratory for medical mycology. This was in some respects a pioneer undertaking. The study of the fungi causing disease in man has hitherto been carried on almost exclusively by investigators whose primary interest and fundamental training were in the fields of bacteriology, parasitology, tropical medicine, or dermatology. Botanists trained in the study of the fungi have entered, and to an extent have dominated, the field of plant pathology, but the "medical mycologist" is almost a new species. Today one is better informed as to the structure, life history, and classification of fungi causing diseases of plants, than as to those producing such infections in animals. In fact, the difficulty, and frequently the impossibility, of identifying fungi isolated from human lesions, or of determining their pathogenic significance, has handicapped the student of these infections. There is much to suggest that many such diseases pass through our clinics unrecognized. Astonishingly little is known of sources of these fungi, of their pathogenic properties, chemical structure, or of their pharmacological susceptibilities. As a field for investigation medical mycology is full of promise.

The establishment of a laboratory for this work was made possible last spring by a gift from the Rockefeller Foundation. The organization was undertaken by a committee from the Departments of Pathology, Medicine, Surgery, and Dermatology. Space and facilities for the work were generously offered by the Department of Pathology and the mycological laboratory in the dermatological clinic was also made available. For the staff, it seemed wise to obtain workers with a fundamental training in botany and

to enable them to acquire here a knowledge of the pathological and clinical aspects of their work. The Department was fortunate in securing as consultant Dr. Bernard O. Dodge, pathologist to the New York Botanical Gardens. Dr. Dodge has won recognition as a leader in mycological research. He is perhaps best known for his brilliant work on heterothallism which has made possible the study of the fungi from the standpoint of genetics. The stimulus and guidance he has given to his new laboratory have been invaluable.

The full-time staff has consisted of Miss Rhoda W. Benham who has been for several years mycologist to this clinic, Dr. Chester W. Emmons who came from Professor Harper's department, Miss Mary C. Moss, and Miss Luz M. Dalmau, formerly assistant in Colonel Ashford's laboratory in San Juan. Professor Margaret B. Church of Urbana College, an authority on the aspergilli and allied genera, worked here during the summer and aided in organizing the collection.

During this first year a room has been equipped and a technician trained for the preparation of mycological media. A collection has been started which already contains 230 strains and includes 86 types of dermatophytes kindly contributed by Professor R. Sabouraud. The assembling of a working library has been begun. Study has been made of the types of fungi isolated from lesions in the clinic and also, in connection with studies on eczema and asthma, of the types found in patients' environments. Considerable time has been devoted to the classification of a collection of one hundred strains isolated by Dr. Kesten from dermatological cases in Porto Rico. Species encountered which are apparently new or which have been wrongly classified are being made the subject of special investigation. Studies are also in progress on the moniliae and the sporothrices. Requests are beginning to come in from other laboratories for aid in identifying unknown strains. It is hoped that these beginnings, made on a small scale, will demonstrate the importance of mycology to the science of medicine. The field of work seems susceptible to almost unlimited and profitable expansion.

Another development of importance was the generous action of the Department of Medicine in assigning to this department six beds for the care of dermatological cases. The need of hospital facilities for the proper care of our patients as well as for the study of the conditions from which they are suffering, has long been evident, and it is hoped that in time an independent dermatological service can be developed in the hospital.

Extension of research in another direction was made possible by the award of the Blumenthal Fellowship in Medicine to Mr. John W. Palmer, for the study of the chemistry of the skin. Mr. Palmer is working under Professor Clarke on the problem of bromide eruptions. For several years Dr. Maechling has been studying the chemistry of arsenical eruptions in Professor Flinn's laboratory. This work is laying the foundation for more extensive study of skin diseases by chemical methods.

The Department already has a well-developed histological laboratory under Dr. Machacek. The new developments reported indicate an encouraging growth toward a well-rounded department which will have under its control a hospital, as well as an out-patient service, and facilities for the study of its problems by the methods of histology, chemistry, bacteriology, mycology, and also physiology and physics. The development of such a department seems necessary for the solution of problems that confront us daily as to the etiology, treatment, and prevention of diseases of the skin.

The work of the year has not, however, been confined to laying plans for the future. The weekly conferences conducted by Professor Andrews on malignant diseases of the skin have been of growing interest. The coöperation in this work of Professors Whipple'and Stout and Dr. Webster is especially appreciated.

Again the Department is indebted to Mr. James N. Hill, who has made a generous contribution for the purchase of radium. The fund maintained by Mr. Hill has made it possible to carry on the treatment of malignant tumors of the skin with an efficacy which we have long desired, and in addition, has furnished a substantial sum which will serve as the beginning of a permanent endowment for this work.

In the field of syphilis, Professor Cannon is comparing the relative value of the more important drugs used in the treatment of this disease and also the relative merits of various systems of treatment. This work has been in progress for three years but conclusions can be drawn only after a prolonged follow-up of the cases treated. It is hoped that this will aid in the difficult but necessary task of standardizing the treatment of syphilis.

The special clinic for the study of allergy in charge of Dr. Kesten, Dr. Laszlo, and Dr. Worcester has been helpful in the management of eczema, urticaria, and related dermatoses. The importance of allergy in fungus infections is becoming increasingly evident and this clinic has coöperated with the laboratory for medical mycology in this aspect of its problem. Two reports on its work have been published during the year and other papers are in preparation.

Professor Andrews has completed his book, *Diseases of the Skin*, on which he has been at work for several years. Professor Cannon has continued his work on the arsenical dermatoses and is preparing a report and exhibit on this subject for the International Dermatological Congress in Copenhagen. Dr. Feit is preparing a report on alopecia areata for the same Congress. Other members of the Department have completed studies noted in the following bibliography.

The Department has lost one of its most valued and best loved members in the death of Dr. Lawrence K. McCafferty. He has been missed as a kind and skillful physician, a conscientious teacher, and an enthusiastic and stimulating fellow worker. The Journal Club which he founded in the Department will remain as his memorial. The Department has also

suffered the loss of one of the younger members, Dr. Vida Sherwood, whose work during her short stay gave every promise of a brilliant future.

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DE LAMAR INSTITUTE OF PUBLIC HEALTH

The only change in personnel has been the replacement of Mr. Pennell as Assistant in the air hygiene laboratory by Elmer G. Feusse, Ph.D., Professor of Chemistry at Southwestern Louisiana University, a volunteer assistant on his sabbatical year.

Attendance at the required course in public health for fourth year medical and dental students which is not recorded, however, in any formal manner, has been better than in any previous year so far as the medical students are concerned, but has been very scanty and irregular by the dental students. It is doubtful if these dental students obtain any benefit from this course. They complete the required reports of individual studies in a medicore manner, but show no interest in the subject matter of general preventive medicine. The usual courses were offered at Teachers College. The attendance at the popular course in public health under University Extension was twice that of last year, the sessions being concentrated over a two weeks' period instead of being spread over several months as was the case in 1928–1929. In Summer Session the course in school health supervision was given. Graduate instruction has been given to six candidates for the degree of Master of Science in Public Health.

Research

The following research problems are at present under way:

In Sanitary Science. Studies upon atmospheric conditions in their relation to health by Drs. Phelps and Feusse. The ionization of the atmosphere and methods for its measurement and continuous recording by Drs. Phelps and Feusse. Bacteriological and other studies of the milk supply of New York City by Drs. Phelps and Isaacs. The thermal death curves of bacteria under conditions of pasteurization by Dr. Isaacs.

In Industrial Hygiene. In collaboration with the Department of Pathology, studies of the effect of diet on the etiology of cirrhosis and pigmentation of the liver by Dr. Flinn. The action of radium on bone structure and its blastophthoric effect on the germ cell by Dr. Flinn and associates. Study of the use of copper in cases of anemia has been continued under Dr. Flinn, especially its effect on the growth curve of babies receiving this

treatment. Studies have been started to determine whether copper is absolutely necessary for the living organism. The possible toxic properties of plasticisers used in celluloid products employed for food wrappers is being studied.

In Industrial Medicine. Study of chronic and atypical forms of lead poisoning, and of the merits of parathyroid extract as a de-leading agent. In collaboration with Industrial Hygiene studies of changes in blood chemistry in metal poisoning and of allergic reactions to the heavy metals.

In Epidemiology. Studies of the trends in fatality rates of certain communicable diseases by age, sex, and month of death in New York State, and comparison with the experience of other states. Studies of incubation periods in typhoid fever in epidemics due to different sources of origin—water, milk, and food.

In Public Health Administration. Analysis of total deaths in New York City since 1866 by age, sex, and cause has been continued.

Miss L. N. Grace of Great Neck made her annual gift of \$5,000 to assist in meeting the costs of research. A grant of \$10,000 for the year 1929 was made by the New York Milk Conference Board to continue the study of the conditions of milk production and distribution in this city from a sanitary point of view. This work has been under way since February, 1928.

Contributions to the information of various lay and professional groups on public health topics have been made by members of the staff at meetings addressed in the following cities during the year, chiefly in connection with the making and interpreting of health surveys, notably in Philadelphia and Boston, and on the subject of the health of school children, and the organization of community health services.

Hartford Connecticut Washington, D. C. Boston, Massachusetts Holyoke, Massachusetts Newark, New Jersey Irvington, New York Mineola, New York New York City, New York Cleveland, Ohio Youngstown, Ohio Chester, Pennsylvania Germantown, Pennsylvania Philadelphia, Pennsylvania Martinsburg, West Virginia

The personnel of the Institute is as follows by divisions of the staff:

Epidemiology Half-time Professor

Full-time Research Assistant

Industrial Medicine Full-time Associate in Medicine Industrial Physiology Full-time Professor (Associate)

Full-time Technician

Full-time Laboratory Assistant

Public Health Administration . Full-time Professor

Full-time Statistical Assistant

Full-time Stenographer

Sanitary Science Full-time Professor

Full-time Assistant Full-time Secretary

Full-time Laboratory Technician

Full-time Research Assistant (Volunteer)

Full-time Laborers (2)

With the exception of consulting service to the Health and Hospital Survey of St. Louis which was terminated in 1928, all the professional relationships in the last annual report were continued in 1929–1930 and the following were added: Professor Phelps and Dr. Emerson served as experts in the case before the Master for the Supreme Court of the United States in the matter of a projected diversion of the waters of the Ware and Swift Rivers for use by the city of Boston against the complaint of damage to health, etc., entered by the State of Connecticut vs. the Commonwealth of Massachusetts. Dr. Emerson acted as consultant to the Federation of Jewish Philanthropies of Boston in the survey of hospital and health services made by the Bureau of Jewish Social Research.

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DEPARTMENT OF DISEASES OF CHILDREN

The Department has completed the first year in its history with adequate and easily available material and equipment for teaching. In previous years the necessity of sending students to the Babies' Hospital, Bellevue, St. Mary's, St. Luke's, and Vanderbilt Clinic, in their old locations, occasioned much loss of time and trouble and interfered with coördinated instruction. The opening of the new Babies' Hospital at the Medical Center now provides adequate lecture rooms and smaller classrooms immediately adjacent to the clinical material on the wards and in the out-patient department and to the facilities of pathological, chemical, bacteriological, and X-ray laboratories.

The Children's Medical Service at Bellevue Hospital, which for many years has carried the main load of the third and fourth year teaching, has, as the result of the completion of the Babies' Hospital, been transferred to the New York University and Bellevue Medical College, and will continue under the direction of Dr. Charles Hendee Smith as Professor of Pediatrics in that institution. Dr. Smith has served the Department at the College of Physicians and Surgeons for over twenty-five years, finally as Professor of Clinical Diseases of Children, and has given unsparingly of his time and thought. Much of the present plan of departmental administration originated with him. He takes with him on his new duty the best wishes of the Department.

Dr. F. Elmer Johnson, for seventeen years associated with the Babies' Hospital, and at present Clinical Professor of Diseases of Children, has been placed in charge of the Children's Service at St. Luke's Hospital. He will continue his association in the Department and conduct elective courses for fourth year students.

The third year course plans to cover systematically the main aspects of growth, development, and preventive medicine in the normal child, and diseases common and peculiar to infancy and childhood, by, first, weekly lectures of clinical and didactic nature to the whole class; second, quiz, recitation, and conference in small sections; third, bedside instruction in small groups on the wards, practical work in the out-patient department, and demonstration in laboratories of bacteriology, chemistry, pathology, and X-ray. On the wards a group of eight men is familiarized with examination and management of the child and with interpretation of diagnostic and therapeutic data available in the histories. In the outpatient department, another group takes part in admission, history taking, and examination of the child, and comes into direct contact with the parents. This instruction includes both the general medical and surgical clinics, and the special classes for such diseases as are best handled by segregation. A third group receives instruction in the laboratories of pathology, bacteriology, and chemistry in the application of technical procedures to infancy and childhood. It is planned next year to have each student follow the same cases during his entire period rather than to attempt to show him a larger number and variety of conditions.

The teaching of acute infectious diseases at Willard Parker Hospital has been greatly hampered by the distance necessary to travel and by the limited time allowed for each section.

Elective courses have been offered at the Babies' Hospital and at Bellevue Hospital. Next year those at Bellevue Hospital will be discontinued and courses at St. Luke's Hospital substituted. At the Babies' Hospital, elective courses will be more in the nature of clinical clerkships on wards and out-patient department, combined with laboratory experience. The few graduate students who have applied during the past year have taken part in the routine activities of wards and out-patient department and in the regular undergraduate teaching, with apparently as much success as in more formally arranged courses for graduates alone. The Friday morning open conference, in which important cases are shown, the week's work on wards and out-patients and laboratories reviewed, and some short report made on current investigations have been well attended and have fulfilled their purposes in providing an opportunity for the unattached physician to keep in touch with departmental activities.

Dr. Warren M. Sperry, formerly of the University of Rochester, has been placed in charge of the chemical laboratories of the hospital, holding the rank of Assistant Professor in the Department of Biological Chemistry and Director of Chemistry at the Babies' Hospital.

Dr. Beryl Paige, Associate in the Department of Pathology, has been transferred to the Department of Diseases of Children as Assistant Pathologist to the Hospital.

Research

The following research work is at present being carried on: anemias and the hemopoietic system under Dr. Wollstein; the respiratory system under Dr. Stafford McLean; pyuria and congenital defects of the urinary tract under Drs. Lyttle and Campbell; nephritis under Dr. Lyttle; diabetes under Dr. Brush; intoxications under Dr. Johnson; the roentgenology of infancy under Dr. Caffey; cardiac disease under Dr. Langmann; epilepsy under Dr. Metcalfe; basal metabolism of infants under Drs. A. B. McLean and Sullivan; the chemistry of developmental and nutritional diseases under Dr. Sperry.

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DEPARTMENT OF NEUROLOGY

In the past year, the Department of Neurology has been coöperating with the Neurological Institute. Many advantages are already outstanding both in research and in teaching, as a result of this combination.

The Neurological Institute has completed the first year in its new building with a marked degree of success. Its wards have been continuously filled since the first month and a long waiting list has been maintained on all divisions for admissions. The out-patient department of the Institute in the Vanderbilt Clinic has been overcrowded to the extent that it is necessary to handle all new patients and re-visits on the appointment system. Coöperation between the several departments in the Vanderbilt Clinic and all the departments of the Medical Center has been most satisfactory and gratifying. The Neurological Institute has had under its care in the wards, private rooms, and private clinics, during the past year, 2,736 patients. The out-patient department of the Institute in the

Vanderbilt Clinic has given medical care to 3,550 new patients; the total number of re-visits has amounted to 19,956, making a total of 23,506.

One of the most important developments of the past year has been the appointment of Dr. Samuel T. Orton as Professor of Neurology and Neuro-Pathology. Dr. Orton comes with an international reputation established both in the field of neurology and of psychiatry. He was formerly Professor of Psychiatry in the Iowa State University and Director of the Psychiatric Institute. He has been made the Director of Neuro-Pathology in the Neurological Institute, and is coöperating with the Department of Pathology in the University. He will supervise all the pathological studies of the nervous system in the Medical Center. It has long been the purpose of the Neurological Department to put neuro-pathology in a preeminent position both in the teaching of nervous diseases and in research pertaining to such disorders. It is hoped that in the future the Department will be able to build along these lines most effectually under Dr. Orton's direction.

Undergraduate teaching this year has been better systematized although there have been considerable reductions in the number of teaching hours. It was felt by the educational committee of the Department that, if anything, the general undergraduate medical teaching in neurology had been improved. Teaching in neurology, as in former years, is done by the Department from the first to the fourth year inclusive. A serious omission of past years was rectified by the introduction of a course dealing with the physical signs of neurological diseases. This course was conducted by Dr. Riley and his associates. The various signs indicative of involvement of the nervous system were shown upon patients or demonstrated by means of motion pictures. With this course, it was hoped that a discipline similar to that of physical diagnosis in medicine would be provided to equip the students in their approach to actual diseases of the nervous system. The third year teaching is done largely by bedside instruction in the Montefiore Home under the direction of Professor Goodhart, An innovation in teaching in the fourth year consisted of section instruction under the five senior officers of the Department. Professor Elsberg was in charge of this instruction, and associated with him were Professors Zabriskie, Hunt, Casamajor, and Tilney. The students were instructed in sections of twenty and the exercises carried on as diagnostic consultations, with special reference to the treatment of each patient. In all, eightyseven patients were seen by the students of the fourth year, each carefully discussed with the students participating. Thirty-five different types of nervous diseases, among these a large number of brain and spinal cord tumors, were presented for detailed review, the clinical material being drawn from the wards, private pavilion, and private clinic of the Neurological Institute. This is the first time in the history of the College of Physicians and Surgeons when the fourth year students have been given clinical opportunities to study hospital cases under the direct control of

the Neurological Department. There can be no question concerning the efficacy of such kind of teaching demonstrations as presents to the students a case for diagnosis in the morning and permits them in the afternoon to see their diagnosis verified or disproved in the operating room.

The postgraduate teaching initiated last year has undergone considerable revision, but the Departments of Psychiatry and Neurology are still closely allied in this effort and the course offered for the coming year presents an attractive opportunity for practitioners of medicine, or those wishing to specialize in neurology, to acquire authoritative information in this field. The reorganization of postgraduate teaching has been in charge of Professors Strong and Potter, the latter being the executive officer of these courses.

Research

In looking forward to the completion of a two million dollar endowment fund for research in the Neurological Institute, the Board of Trustees, through the generosity of Miss Ruth Twombley, Mr. Felix Warburg, and Mr. Harrison Williams, has already made available the sum of \$600,000 so that \$30,000 annually may be utilized for research purposes. This money will be immediately applied to developing the Institute's research program as previously outlined in the Dean's Report of 1929, pages 35, 36, 37, and 38. The fund will be administered by a joint committee consisting of members of the Board of Trustees and the Medical Board.

The Matheson Commission has this year had its headquarters in the Institute. Its principal investigations concerning the vaccine and serum treatment of encephalitis have been conducted under the supervision of the Commission in coöperation with the Medical Staff. The wards, private rooms, and clinical facilities of the Institute have been utilized for the hospitalization and care of patients under special study.

By the death of Dr. William J. Matheson, this field of endeavor and investigation has been deprived of a generous and understanding friend. Dr. Matheson was annually devoting large sums of money to the solution of the problems involved in the etiology and treatment of encephalitis. He has left a most generous bequest for the purpose of carrying on this work, and the Commission is now preparing to bring to conclusion certain further investigations in accordance with Dr. Matheson's wishes.

Effective coöperation in research has been established between the Departments of Bacteriology, Pediatrics, Obstetrics and Gynecology. The helpful spirit dominating these coöperative efforts clearly demonstrates the benefits to be derived in investigative lines from the close association of different branches of medicine.

In the neurological laboratories, sixteen investigators are carrying on research work. A considerable portion of that work is supported by special funds provided by the Commonwealth Foundation for the study of multiple sclerosis and epilepsy.

Dr. Frederick Tilney is still engaged in his studies of the human brain, tracing its evolutionary progress through the mammalian orders. He is giving special attention to the development of the cerebral cortex in six different species of mammals including man.

Dr. M. Allen Starr has made a generous contribution of \$2,500 for the furtherance of the morphological studies on the human brain conducted

by Dr. Riley and Dr. Strong.

Dr. Richard M. Brickner's special research on the pathogenesis and treatment of multiple sclerosis has been carried on through the generosity of the Hayes Memorial Fund and other donors.

The Department is especially grateful for the bequest of \$50,000 by

Mrs. Madeline Ottman for research along neurological lines.

Under a grant of \$10,000 annually for three years, made by an anonymous donor, Dr. Josephine B. Neal is conducting an investigation into the treatment of meningitis, especially by means of anti-meningococcic serum.

Dr. F. H. Pike is carrying on his experimental work in the physiology of the nervous system. His special problem is the organization of the nervous mechanism for the movements of the skeletal muscles, particularly those of the limbs. The manner in which this nervous mechanism gives rise to convulsive disorders has been the central theme of this study. The method of successive lesions of the central nervous system, the second or sometimes the third lesion being made weeks or months after recovery from the first, has been followed more extensively than in previous years. Some functional relationships, unlooked for on the basis of the most widely current views of the organization of the central nervous system, have been brought to light.

Dr. Charles A. Elsberg is pursuing his studies into the nature and more effectual treatment of infiltrating tumors of the brain.

Dr. H. A. Riley is continuing his study on the fore-brain with special emphasis on the thalamic region.

Dr. Joshua Rosett continues his investigations of the conduction tracts in the brain and Dr. Cornwall is devoting himself to the further elaboration of the treatment of neuro-syphilitic lesions.

The Department presented this year three contributions to the annual meeting of the American Neurological Association:

Arsenic in the spinal fluid (quantitative estimation following the intravenous administration of tryparsamide and silver arsphenamine), by Dr. Cornwall with Drs. Myers and Bunker.

Physiological differences between acquired and inherited automatic associated movements, by Drs. Brickner and Lyons.

The functional capacity of the brain as measured by the myelin coefficient, by Drs. Tilney and Rosett.

The last contribution was made as a result of two years' work under the auspices of the Commonwealth Fund in connection with the investigation of multiple sclerosis.

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DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

The conservation of the students' time, rendered possible by the establishment of the Medical Center, is proving of more and more value. Each student in the fourth year spends seven and a half weeks in the Department of Obstetrics and Gynecology. For ten days and nights he is actually resident in the hospital. During his time in this department he has the opportunity of working in all the various clinics both in the Sloane Hospital and in the Vanderbilt Clinic. All of his day is fully occupied except for one hour between twelve and one o'clock when he attends lectures in other subjects. The staff is definitely of the opinion that, as a result of this intensive system, the students get a much better grasp of their subject and as a result are very much better prepared to proceed to more specialized training and to begin in the practice of obstetrics. As stated in a previous report one of the big factors in the reduction of maternal mortality in this country will be the better training in obstetrics of medical students throughout the country. Every member of the staff feels this strongly and each one has taught with energy and enthusiasm. The Department is again indebted to the Nursery and Child's Hospital for providing the students with training in outdoor obstetrical service.

Research

Dr. W. W. Herrick and Dr. Jean Corwin are continuing their study of the anemias of pregnancy. A large amount of material has been collected and this will soon be ready for analysis. In connection with their work it became evident that something further should be known regarding blood volume in pregnant women. Dr. Anthony D'Esopo has been working on this subject. He has had associated with him Mr. Graff from

the Department of Bio-Chemistry. Important facts have already emerged and it is evident that the subject will require several years for its elucidation. For some time it has been hoped that means might be found to have attached to the Department a fully trained chemist to carry on just such work as this is. It has been felt that the teaching of the student is adequately provided for but the Department lacks funds for this type of research. What has been done up to the present has been possible only through the generosity of a few individuals. The Chemical Foundation has recently provided funds to carry this on during the coming year.

Dr. Kurzrok is continuing his studies in the female sex hormone. This work also has been done in conjunction with the Department of Biological Chemistry. Professor Clarke has taken a great interest in this work and in the work on blood volume. The Department is greatly indebted to him for his advice and help and for his very practical coöperation in so many problems.

Dr. D'Esopo and Dr. Tillman are engaged in a follow-up study of the cases of pregnancy toxemia which have been in the hospital. It is hoped that this will shed some fresh light on this difficult subject.

Dr. Joseph W. Draper, in conjunction with Dr. O'Connor of the Department of Tropical Medicine, is making a study of trichomonas infection of the vagina.

Dr. Corscaden is engaged on a very complete follow-up study of cases treated by radium and X-ray. His conclusions regarding the efficacy of this method of therapy in various conditions will be valuable as many of his cases now date back a considerable number of years.

A clinical study of retroflexion of the uterus following parturition is being carried on by Dr. E. S. Coler and Dr. W. E. Studdiford.

Dr. Caverly has completed his study of ovarian tumors complicating pregnancy and his paper is ready for publication.

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DEPARTMENT OF OPHTHALMOLOGY

Lectures on eye diseases have been given to both the third and fourth year classes and section teaching has been carried on with members of the third year class. The use of the ophthalmoscope has been emphasized, and students have been shown many ocular manifestations of diseased conditions of the body. The eye wards in Presbyterian Hospital opened in October, and students have had the opportunity of studying a considerable variety of eye diseases. Before the opening of the eye wards, the section teaching of ophthalmology was carried on in Vanderbilt Clinic in a less satisfactory way.

With an increased number of teaching hours during the coming year it will be possible for the instructor in ophthalmology to give a more comprehensive course. The value of examination of the eye as a diagnostic measure will be impressed on students and they will be taught how to interpret findings.

Research

Dr. Daniel B. Kirby has increased his staff of helpers for the study of cataract. The epithelial cells of the lens are under cultivation in the laboratory and conditions affecting their growth are being studied. Dr. Kirby hopes to gain valuable information regarding factors which may have to do with the arrest of cataract development. Investigations of growing cataracts in patients attending the eye clinic are correlated with the laboratory studies.

As DuBois Fellow in Ophthalmology, Dr. Johnson has begun work at the Neurological Institute on the eye signs and symptoms of brain tumor. He is assisted by Dr. McKeown and Miss Quinlan.

Dr. Johnson has studied 215 cases of suspected brain tumor. Each of these cases has shown eye symptoms that have suggested brain tumor such as papilledema, hemianopsias, or a combination of field defects and muscle paralyses. Careful records have been made in these cases of the condition of the lids, cornea, pupils, fundi, visual fields, and extrinsic muscles, where the mental condition of the patient permitted. Extrinsic muscles, pupils, and fundi have been studied in all cases. Sixty-three of these cases have been verified at operation as brain tumor. A small number have come to autopsy without operation. About ten cases of pituitary tumor are being treated by X-ray and have not been operated. A large number of the unconfirmed cases are still under observation.

In the coming year Dr. Johnson and his assistants plan to go over the voluminous material accumulated and will submit a detailed and comprehensive report.

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DEPARTMENT OF OTO-LARYNGOLOGY

During the twelve months from April, 1929, the Department has treated 19,557 cases, an increase of 6,257 over the previous year. The teaching material has been satisfactory. There was no instruction to the fourth year students but in the third year there were one hundred and two students. Six lectures were given by Professor Coakley at the beginning of the session, the remainder of the teaching being clinical instruction in sections. There were eight to nine students in each section, the smaller sections making the teaching more satisfactory. Over twenty patients were utilized daily for examination by the students; special cases and the ordinary operative techniques were demonstrated. Twelve three-hour lessons were given. In the emergency ward, 263 patients received the advantage of this service. One hundred sixty-four of these patients were operated upon under local anesthesia.

Research

Two pieces of research work are being undertaken. One is by Dr. Page Northington from the fund contributed by Mrs. Alfred F. Hess, on the functions and pathways of the labyrinth. This work is being done in conjunction with Professor Pike and the Department of Neurology. The second piece of work is by Dr. Page Northington and Dr. Edward P. Fowler and the Department of Pathology on pathological changes taking place in the internal ear in cases of impaired hearing. One thousand dollars from the Coakley Clinic Fund is being contributed towards this work. Both of these are investigations that cannot be completed before a year. Arrangements are being made to have them continued until definite practical findings have been accomplished.

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DEPARTMENT OF PATHOLOGY

Dr. Jobling, Director of the Department, has been absent since January sixth on sabbatical leave, and Professor von Glahn also is abroad on leave of absence. Dr. Martha Wollstein, Pathologist to the Babies' Hospital, has been appointed Assistant Professor of Pathology. Dr. Paige has resigned to accept the position of Assistant Pathologist to the Babies' Hospital. Although she will be greatly missed from the Department, having served most competently and faithfully for a number of years, it is felt that her new appointment will bring about a closer relationship with the pathological service of the Babies' Hospital. Dr. Ethel Mott Morgan has been appointed in her place as Resident Pathologist. Dr. James S. P. Beck has resigned to accept a position at the Vanderbilt Hospital, Vanderbilt University, Nashville, Tennessee. Dr. Enrique Koppisch is returning to the School of Tropical Medicine, San Juan, Porto Rico. Doctor Gladstone and Dr. Wilens have been reappointed as Instructors. Dr. Wilens will occupy the position of Assistant Resident Pathologist of the Presbyterian Hospital. Dr. Andersen has been promoted from the position of Assistant to Instructor in the Department. Mrs. Margaret Gutman-Newburger has been made Assistant in the Department. The following new instructors have been appointed: Dr. Lewis Dickar from Rochester University Medical School, Dr. Joseph Victor from Yale University Medical School, and Dr. Abner Wolf from the College of Physicians and Surgeons. Since the appointment of Dr. Orton as Neuro-pathologist to the Neurological Institute, the Department has profited greatly by his friendly and valuable assistance. A close relationship with this branch of pathology is assured through the appointment of Dr. Abner Wolf as neuro-pathologist in this department. Dr. Wolf has had specialized training in this field and will be in close contact with the Department of Neuro-pathology as well as with the Pathological Service. Professor Hans Smetana, who has been in charge of the Department of Pathology of the School of Tropical Medicine, will be associated with this department during the coming year. The growing volume of routine work has resulted in the assignment of an additional hospital interne to Pathology, and in an additional appropriation for technical assistance.

The course in general and special pathology for the second year students was given as usual. Among the visiting lecturers were Dr. R. A. Lambert, Dr. F. W. O'Connor, Dr. S. T. Orton, Dr. W. H. Woglom, Dr. J. G. Hopkins, and Dr. A. F. Hess. In this way, many topics were covered by specialists in their field. Optional work has been offered to the third year students in the form of special case study. In all, some twenty-seven students have taken advantage of this opportunity, and the course has proven so successful under Dr. Paige's guidance that it will be given next year. It is planned to amplify the course in pathology given to the dental students so as to make it in all respects equivalent in time and material to the course as given to the medical students. Dr. Richter, Dr. Ethel Mott Morgan, and one of the junior members of the Department have been assigned to this work.

The routine pathological work of the Sloane Hospital for Women has been carried out as in past years under the supervision of Dr. E. S. Coler and Dr. W. E. Studdiford. Dr. Pappenheimer has acted as Consulting Pathologist. Dr. John H. Boyd succeeded Dr. Radford Brown as Resident Pathologist in July last year, the staff otherwise remaining the same.

The senior year course in obstetrical and gynecological pathology was given, as previously, by Dr. Coler and Dr. Studdiford. Revision of this course at the beginning of the school year was necessary in order to fit it into the changed senior schedule in obstetrics and gynecology. Under the old schedule the course was covered in eleven periods and under the new, in eight. The teaching has been somewhat handicapped, as in past years, by the lack of proper museum facilities. This lack of museum specimens, wherever possible, has been supplemented by the use of lantern slides and fresh operative specimens.

Pathological reports of interesting cases have been presented at the bimonthly staff conferences. Preparation and presentation of these cases have been in the hands of Dr. Boyd. The total number of infant deaths for the year is 110, of which 67 were stillbirths and 43 deaths after viability; of these there were 77 autopsies (70 per cent) showing an increase of 14 per cent over last year. There were 26 adult deaths, of which six were autopsied (23 per cent). Total number of placentae examined was 104.

The routine pathological work in gynecology has shown a marked increase over last year, due to the opening of a new ward in December, 1929. Eight hundred forty-nine specimens were submitted for examination as compared with 640 of last year, or an increase of 32 per cent. This figure will probably double during next year as the Gynecological Service is now working to capacity. Since its inception in 1923 the pathological work of

the Gynecological Service has doubled and is still handled by the same size staff. An increase in the personnel undoubtedly will be required in the near future.

PRESBYTERIAN HOSPITAL LABORATORY

Contributing Groups	Deaths	Necropsies	Percentage
Presbyterian Hospital:			
Medical	301	127	42.1
Surgical	170	78	45.8
Urological Clinic	94	25	26.5
Sloane Hospital:	565	230	40.7
Adults	18	6	33.3
Infants (including stillbirths)	III	71	63.9
Vanderbilt Clinic	20	4	20.0
Neurological Institute (November 1-			
December 31)	18	8	44.4

During 1928 there were 421 deaths and 158 necropsies, the percentage of necropsies to deaths being 37.5. In 1929 there were 621 deaths and 248 necropsies, the percentage being 39.9. Ninety more necropsies were performed by the Department in 1929 than in 1928, an increase of 63.7 per cent.

Sufficient interest has accrued on the Baker Pathological Fund of the Presbyterian Hospital to make it possible to complete the sets of bound journals in the departmental library. Furthermore, through the coöperation of Mr. Roger Howson, Librarian of Columbia University, and the members of the departmental staff who are donating their journals, it will become possible to build up a useful working library within the Department. In spite of the excellent service rendered by the general library, the need has been felt for having the commonly used journals immediately available.

The joint meetings of the American Association of Pathologists and Bacteriologists, the Society of Immunologists, the International Association of Medical Museums, and the Society of Cancer Research were held this year at the Medical Center, and the Department of Pathology had the privilege of acting as host. Several members of the Department contributed papers and demonstrations to the program.

Research

Dr. Andersen has been carrying out a comprehensive study of the possible effect of early thymectomy and of thymus implantation upon the development and rhythm of the oestrous cycle in rats. The work thus far

has shown no essential differences in the age at onset of puberty, the weight at onset of puberty, the type of oestrous cycle, or in mating behavior, when thymectomized rats are compared with controls of the same litter. One positive finding of interest has been noted, namely that the average weight of the adrenals of the females killed during oestrous was definitely greater than in those killed during dioestrous (estimated in terms of percentage of body weight). Dr. Andersen is making a joint report with Dr. Bailey of the Medical Service of a case of acute diffuse myocarditis.

Dr. James S. P. Beck, working under the guidance of Dr. Berg, has completed an anatomical study of the vascular pattern in the islands of Langerhans.

Dr. Berg has continued his investigations concerning the etiology of peptic ulcers. The occurrence of duodenal and gastric ulcers in dogs following the exclusion of bile suggested the possibility of hepatic and biliary disturbances as possible underlying factors in the development of ulcers in man. At present, Dr. Berg is engaged in a study of the physiology and circulation in the islands of Langerhans in the pancreas of the living white mouse. It can be shown that the flow of blood through the islands is controlled by afferent arterioles. The latter respond to vasoconstrictor drugs in high dilutions. These studies bring up the possibility that diabetes may be associated with vasomotor changes which curtail the supply of insulin to the body, without interfering with the nutrition of the secretory cells.

Under the supervision of Dr. Jobling and with the coöperation of Dr. Coakley and Dr. Northington, Dr. E. P. Fowler and Dr. E. P. Fowler, Jr. are studying the temporal bone from the standpoint of the physiology of hearing as well as the pathology. Serial sections are being made of the petrous portion of all of these bones obtainable from the autopsy table. A special effort is being made to study thoroughly the ears of those who have been clinically tested before death. The audiometer tests are largely done by Miss Pless from the League for the Hard of Hearing, the equilibratory tests by Dr. Northington. Under the direction of Dr. Jobling and Dr. Guild of Johns Hopkins, experiments have been begun upon the disturbance of the lymph vessels of the ear of the dog. Under Dr. Zucker's direction studies are being continued on the incidence of middle ear infections in rats fed on deficient diets.

Dr. von Glahn, until his departure, continued his studies with Dr. Flinn of the Department of Physiology on the toxicity of copper, and its relation to hemachromatosis.

In the absence of Dr. von Glahn, Dr. Gladstone has continued with this work. Dr. Gladstone has also begun a study of the pathological changes in animals killed by high voltage currents, experiments upon which are being carried on in the Department of Physiology.

Dr. Hess and his assistants, Miss Weinstock, Miss Rivkin, and Mr. Gross, have continued their study of irradiated ergosterol, a substance

which is specific for the protection and cure of rickets. The investigation has been carried out in the clinic as well as in the laboratory. This year the inorganic phosphorus of the blood has been given special attention. It has been found that this substance may be present in normal concentration in the blood in spite of the fact that rickets is present. This fact is true not only of the experimental animal, but of infants as well, and suggests that rickets is due not only to a systemic disorder, but also to a local disturbance of the growing portion of the bones. It had previously been thought that the development of rickets depended upon a deficiency of phosphorus in the blood. They also carried out a comparative study of cod liver oil and of irradiated ergosterol and found that these two specific antirachitic agents do not have the same potency in infants as in animals; that cod liver oil manifests a greater potency in the infant than in the rat. As a result of this relationship. Dr. Hess suggested that it is not correct to standardize irradiated ergosterol on the basis of cod liver oil as is done at present by the pharmaceutical firms throughout the United States. The method of standardizing ergosterol preparations will have to be a direct biological assay of their potency on the rat.

Two rooms in the Department have been assigned to the laboratory of medical mycology, under the direction of Dr. Hopkins, Professor of Dermatology. This work has been organized under the committee on which the Departments of Medicine, Surgery, and Dermatology are all represented. The beginning of this work was made possible by a gift from the Rockefeller Foundation for this purpose. Dr. B. O. Dodge, pathologist to the New York Botanical Garden, has acted as consultant in this work; and Dr. Chester W. Emmons, Miss Rhoda M. Benham, and Miss Mary C. Morse have been conducting the work of the laboratory. A media room has been organized in charge of a technician to supply this laboratory and also to furnish media and cultural fungi to other departments. A collection of about 250 cultures has been made of pathogenic strains of fungi and allied saprophytic forms. Studies are in progress of the morphology of certain interesting types which have been recovered from patients' lesions. Dr. Emmons has contributed one paper on the morphology of Thielavia terricola, and Miss Benham has been at work on the classification of the Moniliae. Studies have also been made in collaboration with Dr. Beatrice Kesten of the Department of Dermatology on experimental sporotrichosis in animals and plants, and on experimental monilia infections.

Dr. Kesten, during the period from April to August, 1929, was assigned to the School of Tropical Medicine at San Juan, taking charge there of the routine autopsy and diagnostic service. During his stay, he carried on experimental work along several lines, including the occurrence of amyloid in mice inoculated with living B. Abortus melitensis, but attempts to produce this change experimentally in other strains in this laboratory were unsuccessful. Since his return, in collaboration with Dr. D. H. Cook of the School of Tropical Medicine and with the assistance of Dr. Ethel Mott Morgan, carbohydrate fractions have been isolated from several

varieties of Monilia, a strain of Trichophyton gypseum, a Wilia, and from Saccharomyces cerevisiae. These carbohydrates yield precipitates with the homologous antisera and to a certain extent with heterologous. The carbohydrate from Monilia psilosis sometimes produces an immediate urticaria-like skin reaction when given intra-cutaneously. Protein fractions have also been prepared from the same organisms. In addition to his experimental work, Dr. Kesten has taken a very active part in the teaching and routine of the Department.

Dr. Ethel Mott Morgan is collaborating with Dr. Kesten in his experimental work upon the polysaccharides of various fungi.

Dr. Paige has carried a heavy burden of routine during the past year, but has found time to pursue original work along the following lines: In collaboration with Dr. Robert Loeb of the Department of Medicine, she has studied the effect of small and large doses of insulin upon the liver, adrenals, and pancreas of experimental animals. This work is still in progress. She is also making a study of the blood supply in normal and syphilitic bones of infants, using injection methods. A case of myeloma with unusual amyloid deposition is being prepared for publication.

Dr. Pappenheimer, with the assistance of Mr. Charles L. Buxton, has been studying the effect of parathyroidectomy upon the anti-rachitic action of cod liver oil and irradiated ergosterol. The work is not yet completed, but the indications are that prevention and cure are obtained with these agents in the absence of the parathyroid glands. Dr. Pappenheimer has also been collaborating with Miss Marianne Goettsch of the Department of Biochemistry in a study of the effects of deprivation of vitamin E in guinea pigs and rabbits. They have made the interesting observation that absence of this factor or a similar agent from the diet brings about a widespread degeneration of all the voluntary muscles. Preliminary reports of this work have been presented at the Society for Experimental Biology and Medicine. In association with Dr. M. H. Dawson of the Department of Medicine, a study has been made of the pathology of the subcutaneous nodules in cases of chronic infectious arthritis. A paper on this subject was presented at the recent meeting of the American Association of Pathologists and Bacteriologists.

Dr. Richter has continued his studies on mouse leukemia in collaboration with Dr. E. C. MacDowell of the Department of Genetics of the Carnegie institution of Washington. The inbred strain of mice previously reported continues to have many cases of lymphatic leukemia, and several of the lines of leukemia which have been transmitted by inoculation have been continued. The substance responsible for transmission by inoculation is not known, but has not been separated from the leukemic cells. A correlation has been found between the survival time and the number of living cells inoculated.

A second inbred strain of mice has been found in which leukemia has not been observed, and in which inoculation has given negative results. This resistant strain has been mated with the susceptible one, and the hybrids of the F-I generation and the back crosses are being studied with reference to the occurrence of spontaneous leukemia as well as the susceptibility to inoculated leukemia. So far it has been observed that in the F-I generation, susceptibility to inoculation completely dominates resistance. In the back cross to the resistant strain, segregation of resistance and susceptibility has been observed, and the ratios are being studied. A further feature of interest is the development of several lines of inoculated leukemia in each of which characteristic features occur, which cannot be correlated with differences in the spontaneous donors or in the hosts. This work has been carried on with the assistance of Miss Mary McCoy and Miss Katherine Hill.

Dr. Sittenfield, with the assistance of Miss Balbina Johnson, has been conducting experiments upon fowl tumors. Since Rous's demonstration that fowl tumors may be induced by cell-free filtrates, many attempts have been made to demonstrate a similar filterable agent for mammalian tumors. Preliminary experiments reported three years ago the successful induction of mouse sarcoma 37 by means of filtrates in about 4 per cent of the injected mice. In the present studies, particular stress is being placed upon strict anaerobiosis in the preparation of the Ms 37 filtrate, and experiments with such anaerobically prepared filtrates are in progress. Attempts are being made to concentrate the active agent in tumor filtrates by cataphoresis and adsorption experiments.

Dr. Wilens has been working with Dr. Richter and Dr. MacDowell in their experimental studies on mouse leukemia. He has also given two series of lectures and demonstrations to the student nurses of the Presbyterian Hospital.

Professor Zucker, in collaboration with Dr. Berg and Mrs. Newburger, has continued his studies upon the biochemistry of the gastro-intestinal tract, with reference to the relation between electrolytes in pancreatic juice, blood, and urine. In this study on electrolyte metabolism on dogs with pancreatic fistula, it was found that the pancreas as a secretory gland takes precedence over the kidney in its lien on water and electrolytes. The speedy death of animals with complete pancreatic drainage may be attributed to the rapid electrolyte depletion and consequent dehydration of the animal. Survival of these animals can be markedly influenced by the level of salt in the diet previous to and following operation. The observations are being extended to more general problems of inorganic metabolism. Professor Zucker has also collaborated with Mr. Aaron E. Margulis in an experimental study of the behavior of iron and manganese when injected in various forms. It could be shown that iron given as a soluble salt may be stored in considerable quantities in the same form as hemosiderin without showing visible granules, and it is suggested that the normal iron storage for red cell formation occurs in this form. The behavior of iron and manganese when injected as soluble salts is entirely different from their behavior when introduced in colloidal or particulate form. At present, Professor Zucker is carrying on studies in oxidation and

reduction, and is more specifically developing a technique and apparatus for simultaneous determination of pH (by glass electrode) and the redox potentials.

As will be evident from the above report, the Department has developed an increasing number of associations with other departments of the School and outside institutions. Thus, joint investigations are being carried on with the Department of Chemistry, the Department of Medicine, the Department of Physiology, the Department of Oto-Laryngology, the Carnegie Experiment Station at Cold Spring Harbor, and the School of Tropical Medicine at San Juan, Porto Rico.

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DEPARTMENT OF PHARMACOLOGY

The staff has been enlarged by the appointment of S. N. Blackberg as Instructor in Pharmacology. Dr. Blackberg received his degree of Ph.D. from Tulane, where he had been serving as Instructor in Pharmacology. He also holds the degree of D.V.M. from Cornell University and his veterinary training and experience have been of great service to the Department of Animal Care. It is planned to give Dr. Blackberg charge of the instruction of the dental students in pharmacology.

Miss Hrubetz has been appointed Instructor in Pharmacology. She is also connected with the Department of Physiology and her training there has been of great value to this department.

Dr. Mulinos received the degree of Doctor of Philosophy from Columbia University.

Problems at present under investigation are:

The pharmacology of radio-active metals (C. C. Lieb). Dr. Lieb continued this work here, and in Dr. Zwaardemaker's laboratory in Utrecht.

The gastric hunger mechanism; effect of variations in blood sugar (M. G. Mulinos).

Studies in inflammation:

Effects of anaesthesia (M. G. Mulinos).

Effects of salicylates and quinine (L. Hirschhorn).

Effects of sodium benzoate and iodated analogues (A. I. Bernheim).

The pharmacology of the barbiturates:

Effect on the isolated heart (C. C. Lieb, S. N. Blackberg, M. G. Mulinos).

Effect on smooth muscle (S. N. Blackberg, M. G. Mulinos, C. Warden).

The pharmacology of coniine (C. H. Lightner).

The pharmacology of nicotine (M. G. Mulinos).

Acetyl choline; mechanism of its destruction by the blood (J. E. Stern).

Studies in anemia (M. G. Mulinos, K. K. Merritt of Babies' Hospital).

The absorption of hypnotics (M. Klyde and R. Cohn).

Pharmacology of ephedrine (S. N. Blackberg).

Influence of avitaminoses on gastro-intestinal motility (S. N. Blackberg).

Influence of rachitogenic diet on gastro-intestinal motility (S. N. Blackberg).

The action of ergotoxin (S. N. Blackberg).

Prevention and treatment of distemper in dogs (S. N. Blackberg).

The influence of the ovarian hormone on the action of autonomic drugs (S. N. Blackberg).

Hereditary factors in rickets (S. N. Blackberg).

Pharmacology of Melanin (Mrs. J. J. Wanger and S. Hirshfeld).

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DEPARTMENT OF PHYSIOLOGY

The outstanding event in physiology in America in 1929 was the meeting in this country of the Thirteenth International Physiological Congress, which convened at the Harvard Medical School in Boston in August. The Congress is composed of the world's leading representatives of the experimental medical sciences and this was the first meeting to be held outside of Europe during the forty years since these congresses have been held. The membership was the largest yet recorded, comprising 1,066 Americans and 540 from foreign countries. Following the formal sessions in Boston, the foreign members spent a week in New York, where they were housed in the Columbia dormitories. They spent one day at the Medical Center as guests of the staff. A majority of the members of the staff of this department attended the conference.

No material change has been made this year in the methods of undergraduate teaching except in the matter of changes in personnel and assignments to duty. The entire laboratory course has been, as it was last year, under the direction of Professor Howard, and Dr. Hopping has taken charge of the work of the dental students. The Department has been strengthened this year by the addition of a new assistant professor. Dr. Kenneth S. Cole has been trained as an experimental and theoretical physicist and has already had valuable experience in applying the methods and discipline of that branch of science to biological problems. He comes to Columbia after a year spent on theoretical work with Professor Debys at Leipzig. For the present his activities are purely along the lines of research, but it is contemplated that he will eventually offer a course in some phase of bio-physics.

Professor Frederic S. Lee was chairman of the Finance Committee of the Thirteenth International Physiological Congress. At the 175th Anniversary of Columbia University, the degree of Doctor of Science, honoris causa, was conferred upon Professor Lee.

Research

Professor Williams has continued the investigation of electric shock begun several years ago at the instance of the electric shock committee of the Rockefeller Institute. In this investigation he has had the coöperation of the American Telephone and Telegraph Company. The actual experimentation has been carried out by Mr. King of this department and Mr. P. W. Spence, of the engineering staff of the Telephone Company. This work is continuing and with the collaboration of the Department of Pathology, the pathological as well as the physiological aspects of the subject are being studied.

Professor Pike has continued research on the problem of organization of the nervous mechanism for the movements of the skeletal muscles, particularly those of the limbs, and the manner in which this mechanism gives rise to convulsive disorders. He has prepared a chart showing certain of the possible combinations of nervous lesions. The interests of the physiologists are characterized by broad catholicity. The problems of biological evolution from his standpoint are largely concerned with energy relationships and are intimately bound up with the fundamental problems of stellar and planetary evolution. During the last year Professor Pike has undertaken in collaboration with Mr. Eugene W. Pike a joint investigation of mass density relations in eclipsing binary stars.

Professor Scott was absent from the Department during the first half year on sabbatical leave. A number of researches which had been begun in collaboration with other members of the Department or with graduate students has continued. Among these the following may be mentioned:

> The oxygen consumption of trichophyton asteroides (with Earl B. McKinley). Work done at School of Tropical Medicine, San Juan, Porto Rico.

> Continuation of the study of the relation of insulin dosage to the blood sugar of rabbits:

Determination of the mathematical expression of the insulin effect upon the blood sugar.

Study of the permanency of commercial insulin preparation. Study of the precision of labeled strength of commercial samples of insulin.

Comparison of behavior of samples of commercial insulin from various sources (with L. B. Dotti).

Carbohydrate metabolism of rats:

Establishment of norms for blood sugar under various laboratory conditions.

Relation of insulin dosage to incidence of shock and convulsion in rats.

Relation of insulin dosage to blood sugar level and glycogen content in rats (with M. C. Hrubetz).

Continuation of the study of the physiology of the blood of certain urodela (with A. S. Chaikelis).

Study of the relation between the blood sugar level, especially as influenced by insulin, and the differential and total white cell counts (with A. S. Chaikelis).

Continuation of the study of the relation between retention enema and the blood sugar level (with J. F. B. Zweighaft).

Professor Howard is engaged in the following investigations:

A spectroscopic study of cytochrome in the frog's heart.

An application of the thermal conductivity method of gas analysis to the determination of ether concentration in ether-air mixtures.

A study of pain and other sensations in primary anaesthesia. The influence of abdominal wall tonus on intra-abdominal pressure.

Professor Flinn has been carrying on, in collaboration with the Department of Pathology, an investigation of the effect of diet on the etiology of cirrhosis of the liver and pigmentation. With his co-workers, he has carried on studies of the action of radium on bony structures and of its blastophoric effect on the germ cell.

The study of the use of copper in cases of anemia has been continued, with especial attention to its effect on the growth curves of babies. Work has been undertaken to attempt to determine whether copper is absolutely necessary for the development and maintenance of the living organism.

The possible toxicity of plactizers used in the manufacture of celluloid products employed for food wrappers is under investigation.

Professor Hopping continues her work on the gaseous metabolism of alligator blood.

Dr. Zweighaft, in addition to the work on which he is collaborating with Professor Scott, has two independent studies in progress. One pertains to an electrical method of estimation of hydrochloric acid in stomach contents and the other deals with changes of blood pressure in the vertical and horizontal positions.

Professor Cole has fitted up his laboratory and commenced an investigation of the electrical properties of living cells. He has also rendered active assistance to the X-ray department of the Presbyterian Hospital in connection with dosage measurements and other physical problems which have arisen in connection with their work.

Dr. Weinstein has completed a quantitative study of the biological effects of monochromatic ultraviolet light which will be published shortly in the *Journal of the Optical Society of America*.

Dr. Williams continues service as a member of the Council on Physical Therapy of the American Medical Association and has been appointed a member of the Division of Physical Sciences of the National Research Council. He delivered by invitation an address on Thomas Young, the celebrated English physician and scientist, at the Thomas Young Memorial meeting of the Optical Society of America, held at Ithaca, New York, in October, 1929. He has also lectured before groups of students at the Franklin Institute in Philadelphia, at Haverford College, and at Amherst College. He lectured before the Physics Club at Philadelphia and before the Science Association at Amherst.

Owing to lack of space in the animal quarters for an adequate supply of animals it became necessary for this department to arrange to carry out certain researches on smaller animals.

For a time Wistar white rats were available from one of the Government departments without cost except for transportation. This source of supply having ceased to be available, steps were taken to develop a rat colony here. The Department is indebted to State College, Pennsylvania, for the gift of several rats which formed the nucleus of this colony which is housed in the Department and now contains upward of two hundred rats. The supervision of this colony has devolved upon Miss Hrubetz, to whose careful attention is largely due the success with which this project has been carried out.

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DEPARTMENT OF THE PRACTICE OF MEDICINE

In the last trimester of the second year a series of clinical lectures, as an introduction to the clinical clerkship in the wards during the third year, has been inaugurated. The attempt is made in these exercises through properly selected cases to illustrate the approach to clinical problems based on the student's knowledge of physiology, chemistry, bacteriology, and pathology. Diabetes Mellitus, nephritis, and hyperthyroidism serve to demonstrate the errors encountered in metabolism; heart disease, the abnormal features of circulatory physiology; pneumonia or typhoid fever, the pathology resulting from infection; peptic ulcer and carcinoma of the stomach, the disturbed gastro-intestinal physiology; and cancer, the effects of chronic disease on the organism. Emphasis is placed on the fundamental basis of symptoms, signs, and effects as revealed in the individual disease under discussion. At all times the human equation, the patient himself, his physiological type, reaction to his environment and the disease are given an important place in the discussion. Through the generosity of a friend of Dr. Herrick an electrostethoscope has been added to the equipment of this department. By means of this instrument it is possible to demonstrate a much larger material illustrating pathological heart and lung signs, at the same time with a great saving to the patient.

Arranging for the third year students to have their clerkships in the wards has more than fulfilled the expectation mentioned in last year's report. Not only do the students have the opportunity to study disease as a whole in its advanced stages but there is a much more rapid and satisfactory progress in physical diagnosis and history taking than formerly. The advantage of spending all day, every day, in the wards is of the greatest value. It is now possible for the instructors to give more systematic and intensive instruction to individual students. An innovation in the teaching during the third year has been instituted in the form of a clinic once a week given entirely by the students. The instructor attends the clinic and summarizes the essential features at the end. During the past year the clinical material available in the wards has been extraordinarily abundant and varied.

By the new arrangement of the schedule the fourth year students in medicine serve as clinical clerks in the out-patient department and are on duty every afternoon except Saturday. After their training in the third year they are better fitted to study disease in its earlier stages. A new case is assigned daily and their old cases return to them. The instructor in charge of two students supervises their work at all times. Two or three times a week the students gather at the end of the afternoon for informal clinics given by one of the older instructors. During the morning of the medical quarter there are therapeutic rounds on the wards, the school of nursing provides demonstrations of nursing procedures, and they receive instruction in X-ray and electrocardiogram interpretations. The morning work for the fourth year students has not been entirely satisfactory in that all their time is not filled. This is of more concern to the

students than to the instructors. However, it is hoped to make the morning work more satisfactory in the future.

On Saturday mornings a clinic is given for both third and fourth year students. Borderline and difficult clinical problems often involving two or more clinical departments are presented. The Department has been fortunate in securing distinguished men to give some of these exercises. This year Dr. Samuel W. Lambert, Dr. Walton Martin, Dr. Eugene H. Pool, Dr. Emanuel Libman, and Dr. Lewis Connor have very generously given some of the clinics.

A situation has developed as the result of elective time furnished by the new schedule which needs improving. Owing to the large number in both third and fourth years desiring work in medicine it has been difficult to arrange satisfactorily for all. This is particularly true in the third year. The demand is for work in the mornings. We have been able to take a limited number in the special clinics, an arrangement not altogether satisfactory because these clinics are organized primarily for research or special diagnostic and therapeutic procedure. The instructors are so busily engaged in the operation of the clinic they have little time to devote to the students. The elective work at Bellevue Hospital is admirable and entirely suitable for the fourth year but it is difficult for third year on account of the twelve o'clock lectures.

Changes in our staff are as follows. Dr. Gerald S. Shibley goes to Western Reserve University at Cleveland as Associate Professor of Medicine with Dr. Joseph Wearn. It is with deep regret that we see Dr. Shibley leave the clinic but he carries with him our best wishes for success in his new field. Other changes on the Presbyterian staff are the appointments of Dr. Agnes Conrad, Dr. David Moore, and Dr. Putnam C. Lloyd as Assistants and the resignation of Dr. Robert J. Reeves. At Bellevue, Dr. Hugh Hicks has been appointed Instructor and Dr. Wolfgang Grethmann, Collegiate Pathologist, Tuberculosis Service; Dr. John J. Young has resigned. Dr. Meyer Golob and Dr. Emil Granet have resigned from the Vanderbilt Clinic staff.

BELLEVUE HOSPITAL

About fifty third and fourth year students elected medicine and about sixty-eight, tuberculosis. The teaching arrangements have been much more satisfactory this year and will be even better next winter. Owing to the transfer of the Pediatric Service to the Bellevue Medical School, the students will have two or three additional afternoons on the medical and tuberculosis services. In addition, the opening within a few months of the new out-patient department will add greatly to the material available for teaching purposes. Conditions in the present building have been so unsatisfactory that no attempt has been made to utilize it for teaching.

During the past school year the course offered to fourth year students in connection with the Tuberculosis Service has been entirely elective. There has been no fundamental change in the work offered but an attempt

has been made to give more intensive and more individual instruction both in tuberculosis and other chronic chest diseases exemplified on this Service. Instruction is partially didactic, but most of the time has been spent in actual case study at the bedside. Dr. Theodore Badger who has been working as Chief Resident Physician on this Service, and Assistant in Medicine, has helped materially in developing the teaching.

The resident staff on the Tuberculosis Service has been increased during the year and the handling of routine ward work has become more satisfactory. This Service took care of a total of 2,410 patients in the calendar year of 1929, and the variety of manifestations of tuberculosis and other chest diseases is evident from this. The opportunity is taken to study various new procedures of diagnosis and treatment and routine handling of these cases. An increasing percentage of special therapeutic measures are being used, especially in the line of artificial pneumothorax and surgical collapse of the lung. A special research and pathological laboratory in connection with the Tuberculosis Service has been established, and Dr. Wolfgang Grethmann is the pathologist in charge of this. Dr. Grethmann has already collected considerable material to be used for teaching purposes.

Research

Dr. Palmer and Dr. Gutman have been continuing their studies in the metabolism of the creatinine bodies in thyroid disease.

Dr. Dochez, and his collaborators, Drs. Shibley and Kneeland, are continuing their work on the upper respiratory infections with a view to determining whether or not the common cold may be due to one of the known pathogenic bacteria of the upper respiratory tract. They have been able to innoculate the higher apes and have also succeeded in innoculating normal humans with Berkfelt filtrates from the nasal secretions of individuals with common colds. Up to date the work suggests that a filtrable virus is responsible for this infection. This work includes a study by Dr. Kneeland of infants of the Hebrew Home in an attempt to correlate clinical and bacteriological pictures with the development of skin reactivity.

Dr. Shibley is also continuing his work on the physical chemical mechanism of agglutination.

Dr. Boots and Dr. Dawson have been engaged in the clinical study of a large group of patients with chronic multiple arthritis in the dispensary. They have further carried out bacteriological investigations on rheumatoid arthritis as well as pathological studies on the subcutaneous nodules in patients suffering from rheumatoid arthritis. The studies thus far indicate that there is a close relation between acute rheumatic fever and chronic rheumatoid arthritis.

Dr. Hanger is working on allergic phenomena.

Dr. Coburn is carrying on his work in acute rheumatic fever with the attempt to discover factors which are influential in the production and the natural history of the disease. This includes the study of the path-

ological physiology of the human cells involved in the production of the symptom complex forming the complete clinical picture of rheumatic disease.

Dr. Seegal is studying organ hypersensitiveness. He has found that rabbit eyes in whose anterior chamber foreign proteins have been introduced will repeatedly exhibit vascular response following the injection of the same proteins at distant sites. This type of hypersensitivity may be induced with certain soluble toxins of the hemolytic streptococcus and in such instances the eye reaction may be prevented by the homologous streptococcus antitoxin. He is also attempting a biological assay of the various fractions of Streptococcus Scarlatinae prepared by Dr. Heidelberger.

Dr. O'Connor has made further progress in the etiological relationship between the filarial worm and clinical manifestations. In conjunction with Dr. Golden he has been able to demonstrate calcified worms in the tissues of man.

Dr. West has been able to concentrate further the active principle in liver extract effective in pernicious anemia. A single intravenous injection of approximately 700 mgms. of highly purified material extracted from eighty pounds of liver has produced marked typical responses. He has found that the substance contains nitrogen, carbon, hydrogen, and oxygen but no phosphorous or sulphur, and appears to belong to the group of organic bases precipitable with phosphotungstic acid.

Dr. Loeb has been studying liver functions. It is quite well established that one of the functions of the liver is to convert lactic acid into glycogen. On the basis of this fact it has been undertaken to study the ability of the liver to handle lactic acid when given by mouth or when liberated from the muscles by the intravenous injection of adrenalin. There appears to be a somewhat higher level of lactic acid in venous blood of individuals with liver disease but oral feeding does not result in an unusual peak of lactic acid in the blood in these cases. Following the administration of adrenalin the curves for blood sugar are lower in individuals with liver disease than with normals but the lactic acid curves in the blood are similar in form in normals and individuals with liver disorders though the level of the curve may be somewhat higher in the latter group. The work has not as yet been completed.

Dr. Atchley is continuing his study of the acid base in pathological relations.

Dr. Heidelberger's and Dr. Kendall's problems are as follows: (1) Isolation and study of the proteins, toxin, and specific polysaccharide of the scarlatinal streptococcus; (2) continuation of the 'quantitative study of the precipitin reaction with application of the results of the rapid evaluation of Type I antipneumococcus serum; (3) isolation and study of the specific polysaccharide of the Type IV pneumococcus (classification of Park and Cooper); (4) purification of herparin; (5) at the request and with the aid of the National Tuberculosis Association a study of the specific polysaccharide contained within the cell of the tubercle bacillus.

Dr. Richards is studying the circulatory and respiratory functions in certain pathological conditions. With Dr. Barach and Dr. Levy and the assistance of Dr. Milhorat they have observed the effects of atmospheres high in oxygen on cardiac failure. He has further studied the circulatory and respiratory effects of artificial pneumothorax and the mechanism of circulation in a case of congenital heart disease.

Dr. Barach is carrying on his observations on the effects of oxygen in the treatment of pneumonia, postoperative massive collapse, and bronchopneumonia. Together with Dr. Levy he has found that atmospheres high in oxygen are beneficial in the treatment of coronary thrombosis. The use of immune serum produced in human individuals in the treatment of lobar pneumonia due to Types II and III has not proved more effective than serum produced by the usual methods. He has found that the effect of intravenous injection in pneumococcus vaccine in the case of lobar pneumonia by measuring the rate of appearance of protective substance in the blood following inoculation is to produce protective substance four or five days after injection.

Dr. Levy is studying the effects of paravertebral alcohol injection in patients with cardiac pain. Dr. Richmond Moore, of the Department of Surgery, has been assisting him in this problem. With Dr. Turner he has made a careful analytical review of the hospital records of all cases of cardiac pain which have come to autopsy with the idea of analyzing various cases of heart pain and correlate this symptom with electrocardiographic and autopsy findings. He has a further group of mild cases of coronary thrombosis under observation.

Dr. Turner is studying the mode of death of the human heart. He also is making a study of cases which have shown low voltage in electrocardiography with a view of determining the clinical significance of this finding both from the point of view of diagnosis and prognosis. He has also, together with Miss Benedict, continued his work on the effect of raising chickens under amber glass on the hypertrophy of the thyroid gland.

Dr. McAlpin is engaged in the study of haemophilia and purpura and the effect of hydrochloride on cases of Polycythemia Vera.

Dr. Thompson has been especially interested in the variations in the blood picture responses in infection.

Dr. Draper, Dr. Murray, Dr. Conrad, and Mr. Lessa are continuing their work in constitutional studies. Progress has been made in the anatomical and psychological panels.

Dr. Amberson and Dr. Grethmann at Bellevue, have been carrying on studies on the correlation of clinical, X-ray, and pathological findings in pulmonary diseases, making use of certain roentgenographic methods before and after death. It is believed that this investigation will lead to improved methods of diagnosis and perhaps improvement in their clinical methods. Dr. Grethmann has been devoting considerable time to a study of finer anatomical changes in the lesions of pulmonary tuberculosis and their relation to the minute structure of the lung.

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DEPARTMENT OF PSYCHIATRY

The general plan of undergraduate teaching outlined in last year's report has been continued and further developed. The opening of the State Psychiatric Institute and Hospital in December, 1929, added very greatly to the Department's physical facilities by placing at the disposal of the Department, a two-hundred-and-ten-bed psychiatric hospital equipped for teaching and research work and including a large out-patient division, auditorium, lecture halls, laboratories, and museum. These new facilities, together with those already available in the Vanderbilt Clinic and Presbyterian Hospital, have made it possible to round out the instruction in psychiatry in a much more systematic and comprehensive way than was heretofore possible. It is now possible to bring the student into close personal contact with all types and phases of abnormal mental reactions as seen in both children and adults. The range of material exemplifies the mental problems encountered in general hospital patients and in out-patient clinics (office practice) as well as in a psychiatric hospital.

One of the principal aims is to emphasize in teaching that aspect of psychiatric practice which until recently has been very generally neglected, namely, the recognition and treatment of the psychic, emotional, or personality factors which enter so extensively into the symptomatology of cases coming under the care of the general practitioner or surgeon in both hospital and private practice. It is generally admitted that the treatment of the so-called functional nervous disorders and psychoneuroses constitutes a major problem in the everyday practice of medicine. It is also generally recognized that there is great need of a more effective therapeutic approach based on a better understanding of the psychic factors involved in these numerous clinical types.

Probably the most important contribution which psychiatry can make to medical education at the present time is to help train students to approach the individual patient as a biological whole, to study his psychological reactions as carefully as his physical complaints, and further to emphasize the fact that in large groups of patients treatment based on physical measures alone will give poor results or no results. The carrying out of such a teaching plan depends on the psychiatric study of clinical material in various departments of medicine and surgery. The present curriculum and general teaching arrangements are splendidly adapted for this purpose. It is a pleasure to acknowledge the fine spirit of coöpera-

tion which the other departments are extending to us and thus affording opportunities for the joint utilization of clinical material. The number of psychiatric consultations requested on cases in the medical and surgical wards and in the various out-patient clinics continues to increase. During the year the number of ward consultations in the Presbyterian Hospital totaled one hundred and thirty.

The facilities now available make it possible to offer a continuous psychiatric service at the Medical Center, including consultations and emergency care at all hours. In the Vanderbilt Clinic the out-patient psychiatric service is conducted in the forenoons, while at the Psychiatric Institute the out-patient department functions in the afternoons. Psychiatric cases requiring hospitalization, either children or adults, may be admitted to the Psychiatric Institute at any hour.

The curriculum at present in force provides for one hundred and twenty-five hours required instruction in psychiatry distributed as follows: second year ten hours; third year one hundred hours; fourth year fifteen hours. In the second year the instruction consists of ten lectures in psycho-pathology, but practically all of the rest of the teaching throughout the third and fourth years is done by means of clinical demonstration, conferences, and case reports by students who during their clinical clerkships in the third year (ninety hours each student) have an opportunity to examine and study personally a large number of patients drawn from the outpatient clinics, general hospital, and Psychiatric Institute wards. From July 1, 1929 to May 1, 1930, 678 patients were admitted to the Vanderbilt Psychiatric Clinic, 482 adults and 196 children. There were 3,915 interviews or examinations. In addition, 249 patients were given psychometric tests.

During the year the clinic for problem children has been further developed by increasing the medical and social service staffs and operating the clinic two mornings a week in Vanderbilt. It is gratifying to note that closer relationships have been established with the Department of Pediatrics and the staff of the Babies' Hospital. In connection with this work an elective course is offered for fourth year students.

Another development during the year was the establishment of a special psychotherapeutic clinic where patients suitable for psychoanalysis and other forms of mental therapy could be provided for. This clinic is conducted three times a week in the out-patient department of the Psychiatric Institute. In this clinic an elective course is provided for students especially interested in this phase of psychiatric work.

The psychiatric social service in the out-patient departments of both the Vanderbilt Clinic and Psychiatric Institute has been expanded during the year. Through the generosity of an interested physician who donated \$2,500 to assist in the development of psychiatric social service in the Medical School clinic, an additional full-time worker was added to the staff. The chief psychiatric social service worker divides her time between the Vanderbilt and Institute Clinics. She gives to each group of third year

students during their clinical clerkships three talks on the methods and scope of psychiatric social service illustrated by case material. During the year the number of new cases accepted for social study and treatment was 191; the number of field visits made was 558; the number of interviews by social workers at the clinic totaled 2,160.

The elective courses in psychiatry for the third and fourth year students have been rearranged and increased in number. The following will be offered during the coming year:

- Clinical psychiatry—intensive work with selected cases, children and adults, wards of Psychiatric Institute.
- Practice in treatment and management of acute psychiatric disorders on wards of Psychiatric Institute.
- 3. Behavior problems of children.
- 4. Psychometric methods, theory and practice.
- 5. Brain pathology of psychiatric diseases, neuropathological laboratory.
- 6. Psychoanalysis and other psychotherapeutic methods.

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DEPARTMENT OF SURGERY

The number of patients applying for treatment in the Surgical Department has increased markedly during the year and to such an extent that the problem of handling this work has demanded special study. The surgical personnel and facilities have been taxed to their limit. This has produced an extraordinary collection of teaching material as well as unusual pathological specimens.

The assignment of third year students as clinical clerks has proved its value during the year and has been enthusiastically received by the students. The Department is pleased to announce the establishment of six Junior Fellowships in Surgery through the coöperation of the Presbyterian Hospital. These will offer to men who have finished their interneship in various hospitals an opportunity for advanced work in investigation as well as additional clinical training in the out-patient department. Furthermore, the additional personnel will greatly relieve the shortage in the surgical out-patient department.

The Senior Fellows have been of great value in the Hospital and Clinic and have completed or are completing constructive investigation in studies of the thyroid, plastic surgery, bacteriological aspects of peritonitis and the blood flow in the normal and collapsed lung. In the peritonitis problem the Senior Fellow has been working with Dr. Frank Meleney who has undertaken the problem. Dr. Meleney's work on sterilization of catgut has been completed.

The combined clinics in which the Departments of Medicine and Surgery cooperate in the study and treatment of disease have proved of real value and are steadily developing. To this group it is planned to add a clinic

for the combined study of peptic ulcer next year.

The Department has organized a clinic for the study and treatment of benign and malignant tumors in connection with the use of radium and X-ray therapy. A gift of an additional amount of radium by Mr. Harkness has greatly facilitated this work. Drs. Golden, Hanford, Stout, and Lenz are in charge of this work which does not conflict with, but rather augments, the work instituted by Drs. Hopkins and Whipple last year.

The follow-up clinic, now in its fifteenth year, is producing very valuable data in increasing amounts which are of the greatest importance in teaching

both to the surgical staff and undergraduate student.

The clinical and technical investigations in the Fracture Service organized last year have been steadily going on by Drs. Darrach, Murray, and staff.

Dr. Stout is at present abroad finishing his book on tumors which with the follow-up statistics will be unique and of great interest to the general surgeon as well as student.

Dr. Auchincloss has completed a monograph on diseases of the female mammary gland which crystallizes many years of careful clinical and laboratory observation. This will appear in *Nelson's Loose-Leaf Surgery*.

BELLEVUE HOSPITAL

The past year has been largely one of readjustment due to changes in the curriculum allowing students to choose the various courses offered at Bellevue as electives. We have been well satisfied with the reaction of the fourth year students to this plan, eighty per cent having elected Bellevue Hospital, of whom about half have chosen surgery. The resulting diminution in the number of students, all of them interested in surgery, has led to a distinct improvement in the course of instruction, the staff feeling the impetus of the students' increased interest. We feel that the new plan has been a distinct success, at least as far as the Department of Surgery is concerned, and with a year's experience hope for further improvement next year.

There have been no changes in the personnel other than the appointment of Dr. Mueller as Assistant Surgeon to out-patients. He has also worked in the wards as instructor. His addition to the out-patient staff has made possible a better use of the enormous amount of material in this department. With his help Dr. Weeks has just finished the study of a large series of patients with varicose veins, treated by injection, closely checked by measurement and photograph. The results have been of great interest and will be published shortly.

Dr. Krech and Dr. Knox have continued their joint gastric clinic with excellent results. Aside from diagnosis and non-operative care, the care of patients following operation and discharge from the hospital has been much simplified and improved by their work. This clinic has been hampered by lack of space and facilities which should be much improved when the new dispensary is opened. The increased facilities in this building should allow an increased amount of teaching as well as a better study of cases, and should also lighten the burden of the wards where much work has had to be done which is properly out-patient in character.

The work in the wards has continued along the lines indicated in previous reports, the various attendings continuing their study of clinical groups, with no further finished study to report at the present time.

Urology

The Squier Urological Clinic has now completed the second year of its existence and has shown a very gratifying increase in its teaching facilities. The difficult period of organization and adjustment is over and the students have profited by the improved coördination of the rapidly growing department.

There has been a change in the curriculum, eliminating the classes for fourth year students. Teaching is now confined to the third year sections who are in attendance in small groups in all day sessions for eight days. The morning sessions are taken up with the presentation of urological diagnostic methods; the afternoons with attendance on ward rounds, work in the out-patient department, and the operative clinics which are held three days each week.

During the past year, 1,218 patients have been admitted to the clinic; 954 to the wards and 264 to the Harkness Pavilion. This shows an increase of two hundred cases over the previous year. The proportion of operative cases has been greater, and 590 major operations have been performed. The number of cystoscopic examinations has more than doubled, and many interesting and unusual conditions have been demonstrated. The work in the laboratory and X-ray departments has kept pace with the increased

number of patients, affording the students opportunity to see all types of urological diagnostic methods.

The number of patients treated in the out-patient department located in the Vanderbilt Clinic has shown a very decided increase, 5,889 patients having received treatment during the past year. This number does not include the follow-up cases from the wards, which average about six per day.

Since the opening of the Squier Clinic five resident surgeons have been graduated after training, enabling them to take up urology as their life work.

Special work is being carried out with Uro-selectan to determine its scope in diagnostic urology.

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THE SCHOOL OF TROPICAL MEDICINE

The past year represents one of distinct progress for the School of Tropical Medicine. The policies established by the former Director have only been added to and not changed. The complete facilities of the building are now in use and, indeed, there is no further room for expansion or space for additional workers. Every laboratory originally provided for is filled and new laboratories have been provided in space not heretofore occupied. In some instances new laboratories have had to be provided by building partitions in rooms originally intended for one laboratory. This has been made necessary by additions to the staff of local investigators and new appointments which have been made to the permanent staff by Columbia University.

The new personnel of the School has been carefully selected keeping in mind the future development of the institution with particular reference to the development of the teaching hospital.

One of the outstanding events of the year has been the opening of the San Juan District Hospital adjacent to the School. Through a working arrangement with the Commissioner of Health the new hospital has been placed for administration in the hands of an administrative committee composed of the Commissioner of Health, the Sub-Commissioner of Health, the Chief of Staff of the hospital, and the Director of the School of Tropical Medicine who also serves as chairman of the committee. This plan has made possible the development of a strong centralized administration in the offices of the School of Tropical Medicine and represents an important saving of funds to the hospital. The Legislature this year has transferred the hospital directly to the University of Porto Rico as part of the School of Tropical Medicine so that the hospital and School may henceforth be legally developed as one unit. The name of the hospital has been changed to the University Hospital of the School of Tropical Medicine, and the annual appropriation formerly part of the budget of the Insular Department of Health has been given to the University.

In connection with the development of the hospital it should be mentioned here that the professional staff of the hospital, all of whom are members of the Faculty of the School, serve the hospital without monetary compensation. This is the only institution of its kind in Porto Rico where this is so and these physicians deserve special thanks for their loyal and unselfish interest in behalf of this institution.

Several important additions, have been made to the staff. Through additional financial support from Columbia University two new professors have been obtained. Professor George W. Bachman joined the Faculty as Associate Professor of Parasitology, having come to us from Johns Hopkins University. Professor Hans Smetana came to the School from the University of Vienna as Assistant Professor of Pathology. In addition, three new members have been added to the staff from among the local physicians. Dr. Enrique Koppisch has joined the Pathology Department and this year is a member of the Pathology Department at the College of Physicians and Surgeons in New York. Dr. Koppisch will soon return to Porto Rico as instructor in the Pathology Department of this School. Dr. Pablo Morales-Otero came a year ago as Associate in Bacteriology on a full-time basis. Arrangements have been made with the Rockefeller Foundation for a fellowship for Dr. Morales for next year and he will spend the year with Professor Gay at Columbia University, returning later to Porto Rico to become Assistant Professor. Dr. Arturo Carrion came to the School a year ago as Instructor in Bacteriology on a part-time basis and receives his salary from Columbia University. It is hoped that Dr. Carrion may also spend a period in the North on fellowship in another

During the first semester of the 1929-1930 school year there were fifteen graduate students. These students have elected courses as follows: mycology, 3; bacteriology, 4; helminthology, 7; laboratory diagnosis, 1; tropical epidemiology, 1; research in mycology, 1; pathology, 2; outpatient clinics, I; and research in public health, 3. This brings the total number of students for the first four years to 99, but with new enrollments for the second semester the total has exceeded one hundred students. A high standard has been set in the various departments and practically every student is held responsible for some independent work or collaborates with the instructors on a problem which gives him a thorough grounding in experimental methods or the analysis and interpretation of statistics and data. The Commission for Relief in Belgium Educational Foundation has sent to the School this year one of their Belgian Fellows who later is to serve the Belgian government in the Congo. The United States Navy has continued one of their officers in the School as a candidate for the Certificate of Tropical Medicine. Two other students are in residence from continental United States (University of Syracuse and Cornell University) as candidates for the M.S. degree. All the other students are Porto Ricans either qualifying for the A.M. degree in the University of Porto Rico or for the Certificate of Tropical Medicine.

Beginning with this year a new plan has been in force for conducting courses. For the most part the instruction has been given by individual personal contact with the instructor and not by the formal lecture method. This has permitted the students and the instructors to become better acquainted and for the instructors to give individual attention to each student. This policy was adopted in order to give instruction in courses

which are highly specialized and in which perhaps only one or two students were enrolled. However, this plan is flexible and in each course the method of teaching selected is left to the various departments to determine. Courses offered in the second semester were: (1) Filterable virus and rickettsia diseases; (2) research in bacteriology; (3) research in mycology; (4) chemistry; (5) immunology of parasites; (6) entomology; (7) protozoölogy; (8) tropical medicine and surgery; and (9) public health and communicable diseases.

The opening of the San Juan District Hospital has given for the first time immediate clinical facilities for teaching. However the services of the Presbyterian Hospital and those of the Municipal Hospital have continued to be used and various materials for teaching and study have been obtained from other clinics and hospitals in the Island. In the District Hospital an out-patient clinic has been established in which a large number of interesting cases are studied. The policy of this clinic is not based upon quantity, but rather upon the quality of the medical service rendered. Careful and complete histories are taken and the physicians see only as many cases during clinic hours as can properly be examined and studied. Drugs are dispensed free of charge to the patients. As this clinic develops it will prove a most valuable asset to the teaching program of the School.

As in past years several visiting lecturers have been sent to Porto Rico by Columbia University. The stimulating value to the local staff of these scientific visitors can hardly be overestimated. The official lecturers for the year were Colonel Edward B. Vedder of the Army Medical School at Washington, D. C., who addressed the Faculty and students on the deficiency diseases and the vitamins, on leprosy, and on the application of the serological tests for syphilis; and Professor Henry C. Sherman, head of the Department of Chemistry of Columbia University whose four lectures were on the general subject of nutrition, a problem of great importance and interest to Porto Rico. Two years ago Professor William H. Taliaferro of the University of Chicago spent a period of investigation at the School. Dr. Taliaferro returned in January, 1930 and offered a course on immunology of parasites during the second semester. Last year Professor Edwin O. Jordan was a visiting lecturer. Professor Jordan again returned in January, 1930 for a period of investigative work bringing with him his own laboratory assistance and much of his laboratory equipment and supplies. Professor Ernest L. Scott of the Department of Physiology of Columbia University arrived in December, 1929 and remained two months during which time he was able to complete a short problem of investigation.

Other visitors of note were: Dr. George Vincent, former president of the Rockefeller Foundation; Dr. William Darrach, Dean of the College of Physicians and Surgeons of Columbia University; Dr. Wilson G. Smillie of the Department of Public Health at Harvard University who visited the School last year and is conducting, in the Island of St. John nearby, a study on the bacterial flora of the upper respiratory tract; Dr. Homer

Kesten, Department of Pathology, Columbia University who carried on the work of the Department of Pathology for a period of nearly four months during the past year; Dr. Beatrice Kesten, Department of Dermatology, Columbia University, who made a survey of skin affections as seen in the out-patient clinic; and Dr. Francis W. O'Connor, Department of the Practice of Medicine, Columbia University, who again visited the School during the year and carried further his investigations on filariasis involving a new treatment for the disease.

Regular Thursday evening programs have been held throughout the school year, no specific programs being held during the summer vacation. Additional programs are arranged when special lectures and clinics are available. A program for the entire year was made out comprising some thirty-five scientific meetings, which include the seminars, clinics, clinicopathological conferences, and regular staff meeting of the hospital (one of which is held each month). In addition to these, several clinics have been held in connection with the Porto Rico Medical Association and during the present session the School had approximately fifty scientific meetings.

The routine service in pathology has continued to increase. The surgical material coming in for diagnosis has increased nearly fifty per cent. The autopsies have increased about twenty per cent. Heretofore no other routine, excepting pathology, was done in the School. With the opening of the new hospital, however, practically all of the clinical laboratory studies on patients are being done by the different departments of the School. All pathology, bacteriology, parasitology, blood and urine chemistry is now done in the School laboratories. Only blood counts and simple urine determinations are done in the hospital. Besides representing a considerable saving in materials and personnel to the hospital the School laboratories make possible the combined study of several specialists on the patients in this institution. The total number of surgical specimens sent to the pathological laboratory to date is 2,803. The total number of autopsies up to the present time is 306. Approximately nine hundred surgical specimens have been examined during the past year and nearly one hundred autopsies have been performed.

There are three research fellowships: the Bailey K. Ashford Fellowship which was chronicled in the last annual report, the Committee for Relief in Belgium Educational Foundation Fellowship, and the Rockefeller Foundation Fellowship granted to Dr. Morales-Otero for study in the United States. In addition, the Ella Sachs Plotz Foundation of Boston granted the School a fund of \$500 for the study of fungus diseases in Porto Rico and Mr. William J. Matheson of the Matheson Encephalitis Commission granted a fund of \$2,000 for compensation of two laboratory assistants who are also students in the School.

As in the past, the School has received during the present year a sum of \$30,500 from the Government of Porto Rico as a direct appropriation from the University Trust Fund. A year ago Columbia University increased its appropriation by \$10,100, making a total of \$31,100 contributed to

the School by this institution. Student fees collected during the past year amounted to \$2,155 which makes a total income of \$63,755. The University of Porto Rico has increased the budget for next year by \$10,000 a most generous act on their part which will allow better work to be done.

The School of Tropical Medicine has won its place in Porto Rico. It has established itself in the scientific world at large. Up to the present it has been in its first period of growth. It now has an organized faculty, composed of both continental and insular Americans, working under a carefully planned policy in harmony and unselfish understanding. Its one great need is financial support. One must look forward to the time when educators who are concerned particularly with medical education in its broadest sense will become interested in this venture to the extent of providing a modest endowment. This end may be looked forward to with the hope of ultimate success and meanwhile the enterprise must be carried on in the best possible way.

The threefold purpose of the School of Tropical Medicine, namely, (1) through investigation to solve medical problems important to the Island, (2) through teaching to develop local interest in scientific investigation, and (3) through various activities of the School to raise the standards of medical practice in Porto Rico, is rapidly being realized.

Research

One of the outstanding events of the past year has been the beginning of the new Journal of Public Health and Tropical Medicine which is published quarterly in September, December, March, and June of each year by the Department of Health of Porto Rico and the School of Tropical Medicine. The first number appeared in September, 1929 as No. 1 of Volume V (taking the place of the former Porto Rico Review of Public Health and Tropical Medicine). In order to facilitate the publication of the new Journal its headquarters have been moved to the School of Tropical Medicine from its former office in the Health Department. Henceforth the Porto Rico Journal of Public Health and Tropical Medicine will serve as the principal medium for publications from the School.

Dr. Francis W. O'Connor, of the Department of Practice of Medicine, College of Physicians and Surgeons, Columbia University, spent two productive periods of work at the School during the year studying filariasis. Dr. O'Connor's studies dealt particularly with methods of treatment of filarial lymphangitis by subcutaneous injections of Sulpharphenamine dissolved in one per cent solution of novocaine. The injections were given in a spot or localized area in the affected limb at which pain or itching heralded the onset of the attack or rigor, or was especially severe during the inflammatory state. In the first study dealing with this method of treatment, Dr. O'Connor treated thirty-two cases, though only twenty were treated long enough to justify consideration. Of these, eighteen had no recurrence. The method seemed to warrant further trial and Dr. O'Connor returned to Porto Rico later in the year to continue the work

and also to try other methods. A complete report of this work will be published later. During Dr. O'Connor's visits to Porto Rico he was also able to demonstrate the complete filaria cycle from man to man in the West Indies and succeeded in keeping alive in culture the microfilaria for twenty-five days, which is nearly three times as long as any other recorded culture. With Mrs. Hulse, Dr. O'Connor found that about seventy-five per cent of infected individuals on the Island are laundry workers or live in families where there are laundresses. This is an important observation in connection with the epidemiology of this disease in Porto Rico.

Dr. McKinley has also been interested in making a bacteriological study of the cases of acute filarial lymphangitis in view of certain reported studies (Wise, Leber and von Prowazek, Bahr, Rose, Anderson) in which streptococci and staphylococci have been described. Thirty-five cases, selected by Dr. O'Connor, were carefully studied in the hospital under the most rigid technique with only negative results. Ten additional cases were studied on the outside with negative results. A complete report of this will be published later when a larger number of cases can be reported.

During the past year Dr. Ashford has continued the study of sprue and other anemias in Porto Rico. Further studies have been made upon the evaluation of liver extract in the treatment of sprue. Important studies upon the classification and blood picture of the anemias in Porto Rico have been made by this investigator. The Pathology Department of the School has been interested in a study of the bone marrows from cases of sprue but as yet the work has not progressed far enough to warrant any report.

In the Department of Bacteriology, Dr. Morales-Otero and Dr. McKinley have been interested in the experimental transmission of leprosy to monkeys. This work is now in progress and a report of the results will be published later. The Chemistry Department has continued the study of the blood constituents of lepers and will soon complete this work. The work, so far, indicates values within the normal range or in some instances, very close to the normal.

Studies on nutritional problems peculiar to Porto Rico have been continued by Dr. Cook and Miss Rivera.

Diseases of the skin are very prevalent in Porto Rico. Dr. Carrion has described a fungus causing epidermophytosis of the general surface of the skin which is very common in the Island. Dr. Beatrice Kesten, of the Department of Dermatology, Columbia University, spent several months in Porto Rico during the past year studying skin diseases in general. Her report gives some indication of the types and percentages of various skin affections present here. Of 493 cases studied Dr. Kesten found that staphylococcus infections, pigment anomalies, and vegetable parasitic (fungus) infections represented about four-fifths of the lesions. The fungus infections made up forty per cent of the lesions of the skin and the appendages.

Dr. Ashford, with Dr. Rafaelle Ciferri who came from Santo Domingo for a short period of residence at the School, described a new species of blastodendrion, a new species of mortierella isolated from the human skin, and two strains of pullularia pullulans (DeBarry) Berhout, also isolated from the human skin.

With special funds supplied by the Ella Sachs Plotz Foundation, Dr. McKinley, with Dr. Ashford and Dr. Dowling, succeeded in producing experimental trychophyton infection in monkeys and certain immunological experiments are now in progress. A complete report of this work will be published later.

While studies on the control of malaria in Porto Rico are being carried on by the Department of Health in coöperation with local representatives of the International Health Division of the Rockefeller Foundation, certain other studies have been made at the School or have been initiated by this institution. Lambert has reported certain pathological studies in malaria based upon 192 autopsies performed by him in Brazil and will soon present a similar report on 163 autopsies made by him in Porto Rico. Dr. Ruiz Nazario has published a report on the coincidence of malaria and typhoid fever in the Island showing that in Porto Rico it is not unusual to find coincident infection by these two diseases and that these cases are more frequent in the localities where malaria is endemic. The symptoms are more severe than in simple typhoid fever (as might be expected), the hemorrhages are apparently more common than in uncomplicated typhoid fever, and P. falciparum is the most frequent parasite found.

Faciola hepatica is a common fluke infection of cattle in Porto Rico. Furthermore, it is known that man occasionally serves as the definite host for this species. Dr. Hoffman has succeeded in developing a serological test for this parasite though the precipitins reacting specifically against antigen prepared from this fluke are demonstrable only in low dilutions.

Tuberculosis has continued to engage attention since it is one of the foremost causes of death in the Island. During the year a study of its epidemiology has been continued. The belief seems well established that this disease is closely allied to the general economic and nutritional problems of the Island.

Other respiratory infections are not so common in Porto Rico but interesting studies on the bacterial flora of the upper respiratory tract have been made during the past year. Mr. Pomales, a graduate student in the School, has carefully studied the flora in one hundred normal individuals, seventy-five diseased throats, and sixty-five pairs of tonsils removed at operation. The high percentage of non-hemolytic streptococci is noteworthy as the normal basic flora (along with Gram-negative cocci) in normal individuals. Hemolytic staphylococci and hemolytic streptococci predominated in pathological throats and the hemolytic staphylococcus predominated in cultures from the crypts and interior of diseased tonsils removed at operation.

Dr. Morales-Otero has now followed the normal flora in one hundred normal individuals for several months in connection with a study of similar nature being carried on by Dr. Dochez, and his group at the Medical Center in New York. Over a period of a year, through the various seasons (not so marked in Porto Rico but, of course well defined in the North), it is thought such a study in the tropics will be of special interest. The non-hemolytic streptococci described by Dr. Pomales in the throats of normal individuals are found by Dr. Morales-Otero to be of the green producing type.

Epidemic encephalitis has engaged the attention of Dr. McKinley for a number of years. This disease is not very common in tropical countries but it does occur. Through a research grant from the Matheson Encephalitis Commission, work has been in progress on the relation of the green producing streptococcus to this interesting disease. A full report of these

studies is being prepared.

Cattle abortion has been present in Porto Rico for a number of years. Dr. Morales-Otero has isolated B. abortus from the dairy stock. Up to the present time not a single case of undulant fever has been reported in the Island. Several mild and rather vague conditions have been suspected of being undulant fever but no proof has been forthcoming. Dr. Morales-Otero has been interested in the protection of cattle by vaccination and more recently, in an attempt to produce experimental infection in human volunteers with the porcine and bovine varieties of B. abortus. Apparent success has been met with B. melitensis abortus porcine, but feeding of the bovine variety to human beings has resulted in only negative results. Further studies on this subject are in progress. At the present time it seems quite conservative to state that undulant fever is not present in Porto Rico despite the widespread presence of infectious abortion in our dairy stock and the reports from the North of the relation existing between these two conditions. Perhaps the general custom of boiling milk in Porto Rico accounts for the absence of undulant fever in the Island.

In Porto Rico, food poisonings are comparatively frequent. Diarrhoea in infants and so-called enteritis are probably nutritional conditions. Diarrhoea and enteritis lead all causes of death in the Island. During the past year cases of food poisoning have been investigated though in each case the causative organism was not demonstrable. The entire question of diarrhoea and enteritis in Porto Rico needs careful investigation. Professor Jordan has come to the Island again to investigate the problem and we hope that something definite may be learned concerning it.

The precipitin test of schistosoma mansoni, developed here by Drs. Taliaferro, Hoffman, and Cook, is now being applied to clinical cases of infection. Dr. Dormal, from Belgium, is collaborating with Dr. Hoffman in this work. The results of this investigation will be published later.

An experiment dealing with the effects of tropical sunlight has been in progress during the past three months and will also be subject of a later report.

Studies on the hemolytic staphylococcus, so prevalent in Porto Rico, are also in progress as well as investigations concerning the action of the bacteriophage upon these organisms.

A large number of the filterable virus agents are being investigated in the bacteriology department in the hope of throwing light upon some of the fundamentals concerning the interesting and very important group of diseases to which they are related.

In closing this last report of the present administration of the School of Medicine, I must express my deep appreciation of the patient, loyal, and earnest cooperation of the whole staff of the School. Through dark days of discouragement, annoyed by the many details of planning and of construction they have steadily continued to improve their teaching methods, to broaden and deepen their fields of investigation, and by their unselfish devotion to the ideals of the School as a whole, have developed an esprit de corps which has far greater value than buildings, land, or endowment. None of this could have been accomplished, Mr. President, without your long-suffering patient support and wise counsel. You have allowed us to muddle through our difficulties and have never failed to give us sympathetic understanding and sage guidance. Our gratitude and appreciation are deep and will be lasting.

Respectfully submitted,

WILLIAM DARRACH,

Dean

June 30, 1930

SCHOOL OF ENGINEERING

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to submit to you the following report of the School of Engineering for the academic year just closed.

There are transmitted herewith for your information copies of the annual reports prepared by the engineering departments. These give in more detail than can be included in full in this report the features of the past year as viewed from departmental standpoints. From these reports a few items only may be cited.

The Department of Chemical Engineering in its report calls attention to the wide range of authoritative lectures on chemical engineering subjects by representatives of industries who come to speak to the students in chemical engineering, and also to the variety of industrial plants visited by the students during the year. New York City is so great a center of chemical developments that the opportunities in these directions are, of course, exceptional. The departmental report also includes a brief statement of the activities of the several members of the Department outside of the University. All the professors are active members of important committees of professional societies, and all are called upon for important work as advisers to government bureaus, to municipal undertakings, to institutions of various kinds, and to industrial firms, illustrating well the unlimited range of connections that are practicable for the members of our chemical engineering staff, and the service, public and otherwise, that they are rendering at the present time. The fact is stressed that the demand felt here for men trained in chemical engineering is a call for men who have

had opportunity to go well beyond the undergraduate stage, men with an extensive fundamental training both for research and for the type of operating work that eventually leads to executive positions. Many institutions are turning out graduates equipped to occupy the general run of positions in the chemical industries, but Columbia is especially looked to for men of unusual training and breadth of education.

Some of the points from the report of the Civil Engineering Department to which special reference may be made are the following. Early in the year were published the results of Professor Krefeld's work entitled, An Investigation of the Failure of Flame-cut Wind-bracing Brackets. In this study Professor Krefeld has made a contribution to knowledge of the manner in which pieces of structural steel may fail in the neighborhood of edges left by torch-cutting; knowledge that it is essential to have in developing the usefulness of flame-cutting, and of welding in structural steel building. The testing laboratories bought and installed a 100,000 pound Olsen Universal Testing Machine, a machine of very convenient size for a great range of tests and experiments on comparatively small specimens. The Department has given much attention to planning a new testing laboratory, which it is hoped can soon be built, now that the Thompson gift has made possible the purchase of the large testing machine for which the large-scale construction in this locality has created so great a need.

The Department of Electrical Engineering notes valuable additions to its equipment, such as, for example, a new three-element General Electric Company oscillograph. The University Classes that are conducted in the evening by this department have shown a marked increase in registration and students of previous years have been asking for additional courses, particularly to deal with the principles underlying the newer features of the technology of the communication industry, such as the various types of electron tubes, of repeaters, condensers, and the properties of audio-frequency circuits. The report records varied activities of members of the Department, and notes also the numerous

papers presented before national professional societies by graduates in electrical engineering.

The Department of Geology and Mineralogy, while not primarily an engineering department, submits a report which illustrates most strikingly the close connection between geology and sound engineering practice in connection with many engineering undertakings, particularly with large undertakings of the type that we class under civil engineering. For example, in the past year Professor C. P. Berkey served as a member and as secretary of the Colorado River Board of the United States Department of the Interior, reporting on the problems of the location of the Boulder Dam. He was a member of the advisory board of engineers of the Department of Public Works in the state of California, studying and reporting on several dams in that region; he was geologist for the Metropolitan District Water Supply Commission of Boston, for the Board of Water Supply in the city of New York, for the New Jersey State Water Policy Commission, for the North New Jersey District Water Supply Commission, and for the Port of New York Authority. Professor D. W. Johnson is consultant to the Board on Sand Movement and Beach Erosion, established by the Chief of Engineers of the United States Army, and was engaged in research on the shore processes operating under different conditions along the North Atlantic coast. While in Honolulu, on his return from visits to South Africa, Australia, New Zealand, Java, China, and Japan, he was consulted by the Governor of Hawaii and the superintendent of public works on the reclamation work in progress at Waikiki. Professor R. J. Colony has served as geologist for the Saratoga Springs Commission, and also for the Board of Water Commissioners of Wilmington, Delaware, to advise on geological conditions affecting certain large engineering projects in that city. The report lists also a wide range of accomplishments in purely geological fields not directly related to engineering. Professor P. F. Kerr, of the mineralogy section, has brought out some facts in regard to kaolin that may prove of much industrial interest; namely, that kaolin consists of three

different crystalline substances having the same chemical composition. This fact has been brought out by the use of the X-ray method of crystal analysis.

The Department of Industrial Engineering notes that in comparing the industrial engineering curriculum in Columbia University with that of eight other institutions it appears that the Columbia program of study has the greatest amount of instruction in the fundamental scientific subjects of mathematics, physics, and chemistry on the one hand, and in the specialized industrial engineering subjects on the other hand. Further, that it is the only one of these institutions including instruction in chemical engineering in its industrial engineering program, though the subject of chemical engineering, or applied chemistry, is of the greatest importance to the industrial engineer, since there is scarcely any industry of importance which does not encounter problems in chemical engineering.

Several of the students of the third year class in industrial engineering have been assigned to part-time service in the industries. The arrangement is hardly to be styled a formal cooperative course in industrial engineering, but it has the valuable features of the so-called cooperative system. The students bring back live and interesting problems for class discussion, and an enthusiasm which has been most helpful and stimulating. As usual, this department continues to avail itself of the opportunity of having its students confer in informal meetings with experts and specialists in various phases of plant design and industrial management. Professor W. Rautenstrauch has published a book for business executives entitled, The Successful Control of Profits. The opportunities for immediately valuable research and the needs of a more extensive seminar library and of laboratories are clearly pointed out.

The Department of Mechanical Engineering reports that even in this year of general business depression there would have been no difficulty in placing in positions of good opportunity many times the number of graduates that were actually available.

On account of physical disability Professor Lincoln D. Moss was unable to undertake to conduct his important courses. These were first transferred from the Winter Session to the Spring Session in the hope and expectation that he would be able to return to handle them in the Spring Session. This, however, he could not do, and the Department was fortunately able, through the much-appreciated cooperation of Dean Greene, of the Engineering School of Princeton University. to secure the part-time service of one of his staff in mechanical engineering, Professor Frank L. Eidmann. His work under somewhat trying conditions has been more than satisfactory. Attention is again invited to the inadequacy of the physical facilities for the teaching work of the Department, and action is urged on recommendations already made in order that the deficiency in respect to laboratory space and equipment may not become disheartening.

The report of the Department of Mining and Metallurgy is chiefly taken up with the account of researches by staff or students, completed or in progress, and of the improvements that have been made in equipment, partly through the use of a portion of the Thompson gift, and partly through appropriations made from research funds of the University. This new equipment runs all the way from a complete new laboratory for the investigation of the structure of metals and other substances by X-ray analysis to the accession of microscopes, furnaces, and other varied equipment in the several laboratories. Under researches and publications are listed the following: Investigations by Professor William Campbell on the structure of electric welds in pipes; on structural changes produced by corrosion in ancient copper and bronze; on specimens of ancient iron, including a Greek specimen of 500 B. C. A complete revision of the list of alloys and their properties for the American Society for Testing Materials, to supplant the list prepared in 1922, was made by Professor William Campbell, assisted by Mr. V. Scalise. Professor E. F. Kern has made investigations on silver alloys that resist tarnish; Professor Kern and Mr. C. H. F. Cottee, on potential methods of predicting corrosion resistance of alloys; Professor Kern and Mr. E. M. Morrill, on impregnated carbonates, fluo-silicates, and sulphate electrolytes; Mr. K. M. Simpson and Mr. R. T. Banister, on super-hard alloys for cutting tools; I. G. Agureeff, on specific heats of certain electrolytic solutions.

Papers by Professor Kern and Mr. T. R. Jones on titration of fluo-silicate and fluo-borate solutions and on addition agents in bismuth electrolytes were published in the Transactions of the American Electrochemical Society. From the ore-dressing laboratories a paper entitled "Chemical Reactions in Flotation," by Professors A. F. Taggart, T. C. Taylor, and Mr. A. F. Knoll was published in the Transactions of the American Institute of Mining and Metallurgical Engineers. Mr. G. R. M. del Giudice has been investigating slime coatings and electrical charges on particles suspended in liquids. Mr. O. Ziehl has studied the solubility of certain ores in water, and the factors controlling the precipitation of heavy metal salts of flotation agents; and in cooperation with Dr. C. W. Drury, of the Deloro Research Laboratories, has studied the oxidation of sulphides and thio sulphates in solutions of varying acidity. Mr. T. C. Fitt has worked on the Brownian movement of mineral particles in flotation pulps.

Professor Bucky presented a paper entitled, "Factors Affecting the Replacement of Mining Equipment," at the annual meeting of the American Institute of Mining and Metallurgical Engineers. A large part of Professor Bucky's attention through the year has gone to the development of a method of studying by means of models the disruptive stresses of the type that produce subsidence in connection with mining operations, and upon which cave-in methods of mining depend. It seems probable that the coöperation of several agencies outside the University can be enlisted in this investigation. Professor Jette was on leave in the Winter Session, visiting metallurgical laboratories and plants in Europe. As coauthor with Professor Westgren of Stockholm, Professor Jette presented a preliminary report on the study of gold-cadmium alloys, to be published by the Swedish Academy of Science.

Under the direction of Professor E. J. Hall, Messrs. D. A. Morris, D. O. Noel, and E. P. Carney are engaged in the study of the properties and uses, for a variety of purposes, of finely divided metal particles. Professor T. T. Read published several papers of general interest related to the mineral industry, some of which received wide circulation in the press. In the Williams College 1929 Institute of Politics he conducted a round table dealing with various aspects of the mining industry.

The most important changes of staff to record are in the Department of Mechanical Engineering. Charles W. Thomas, Assistant Professor of Mechanical Engineering, whose connection with the staff dates from his appointment as tutor in 1908, has, on reaching the retirement age, applied for retirement following a sabbatical leave for the first half of the next academic year. At the same time Lincoln deG. Moss, Assistant Professor of Mechanical Engineering, who has been on the staff since appointment as Associate in 1910, has asked for retirement following a year's leave of absence necessitated by the return of trouble from an old injury received while in service as an officer in the Navy in the Spanish-American War. Professors Thomas and Moss retire at an age when they may look forward to a period of years of professional activity in the special fields of mechanical engineering in which they are interested. They have set examples of devoted and loyal service to the University and of the most ready helpfulness toward their colleagues and their students. Our best wishes follow them for what we hope will be a long continued professional activity.

This loss by retirement of Professors Thomas and Moss has made it necessary to reorganize the work of that section of the Department of Mechanical Engineering for which they were responsible, namely, the section of machine design and closely related subjects. This has been done by the appointment of Frank L. Eidmann, M.E., Stevens Institute of Technology, 1909, as Professor of Mechanical Engineering, to give instruction particularly in machine design. Professor Eidmann comes to Columbia after serving

since 1923 as an Associate Professor of Machine Design and Industrial Practice in Princeton University. Eidmann has had professional engineering experience with the Olds Gas Power Company, Lansing, Michigan; with the American LaFrance Fire Engine Company, Elmira, New York; with the Heald Machine Company, Worcester, Massachusetts; with the Cowan Truck Company, Holvoke, Massachusetts; and as consulting engineer with the Barrett Cravens Company, Chicago; and for the Revolvator Company, Jersey City. He was visiting lecturer here in mechanical engineering in the spring term of the present year; during the war he was stationed at the United States Navy Gas Engine School, Columbia University, as supervising instructor, Aviation Engineer Officers Division. While holding the Roberts Stuart Brooks Fellowship of Princeton University he visited and studied a large number of manufacturing plants in the United States and traveled extensively in Europe. He is active on important committees of professional societies. A book by him entitled Economic Control of Engineering and Manufacturing will be published in the fall. He assisted R. L. Streeter in his last edition of Internal Combustion Engines, and has contributed numerous articles to mechanical engineering journals.

The other appointment is that of George B. Karelitz, graduate in naval architecture and mechanical engineering, Polytechnical Institute in Petrograd, 1918, as Associate Professor of Mechanical Engineering. Professor Karelitz comes to us from the engineering staff of the Westinghouse Electric and Manufacturing Company, where he was research engineer of the mechanics division in the research department of the company in East Pittsburgh. Professor Karelitz was an officer in the old Russian navy, and following its disintegration had responsible engineering positions in Russia until 1921, when he went to China and from there came in 1922 to the United States, where he became a citizen in 1928. He has taught as a "Westinghouse lecturer" in the University of Pittsburgh. Numerous articles published by him, mainly since coming to this country, deal with engi-

neering problems in applied mechanics. With Mr. Ormond-royd, of the Westinghouse Electric and Manufacturing Company, he has prepared a book, *Problems in Mechanics*, which is ready for publication.

Professor Eidmann will deal chiefly with those phases of machine design that are concerned with standard practices in design, rational or empiric, and with reference to shop limitations. Professor Karelitz will devote himself to the analytical and mathematical phases of machine design with special reference to advanced viewpoints and new methods. Both the new appointees are young enough and of competence sufficiently tested to justify us in hoping that the treatment of machine design here may through their efforts be advanced materially beyond its usual status in engineering schools.

An action of the Faculty taken at the March meeting, and subsequently approved by the Trustees, will have an important bearing on the future constitution of the Faculty of Engineering. It has in many cases happened that a member of the staff of professorial grade in a department related to engineering, but not itself an engineering department, has been assigned to this faculty on account of his being largely engaged in the teaching of engineering students, and then later he has ceased to teach engineering students at all or to be in any way directly interested in the School of Engineering, though still remaining a member of the Faculty since heretofore appointments have been for an unlimited period. The Faculty of Engineering therefore adopted the following resolution, proposed by the Committee on Instruction:

That the Faculty of Engineering request the Trustees hereafter in making assignments, other than those prescribed by the Statutes, to seats in this faculty to make such assignments for a period of three years only, except in the case of professors in the Departments of Mining and Metallurgy, Civil Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering, and Industrial Engineering.

It is entirely in accord with the development indicated in the recent change of name from the "Faculty of Applied Science"

to the more specific "Faculty of Engineering" that the membership should be constituted of the professors in engineering departments, and in addition only those professors in other departments who are largely concerned with the teaching of engineering students.

Until two years ago there was in the pre-engineering program of study no differentiation in courses of study in preparation for the different branches of engineering. This arrangement, which had very decided and obvious points in its favor, was, for reasons applicable at the time, departed from in the revision of the program of study made two years ago. The pre-engineering curriculum has now been changed again so that all pre-engineering students except those preparing to take the course in metallurgy or in mineral dressing, who take qualitative analysis, have the introductory course on power, with Professor C. E. Lucke, as a pre-engineering study. This rearrangement, by transferring from the first engineering year to the pre-engineering program this course that all students take, has made the pre-engineering course again the same for all students, with the exceptions noted above, and with the additional exception that a twopoint course in theory of surveying is prescribed in the pre-engineering program for civil engineering and mining engineering students only. It also will have the effect of bringing all of the pre-engineering students into contact with the thought and outlook of one of the senior professors of engineering through a regular course of instruction.

There was introduced this year into the freshman preengineering curriculum an orientation course entitled "Introduction to Engineering." The Special Alumni Committee in its report in the fall of 1927 recommended that a course of this kind be given by one of the senior professors of engineering. A subcommittee of the Committee on Instruction of the Faculty of Engineering, consisting of Professors A. W. Hixson, J. K. Finch, and J. H. Morecroft was charged with making recommendations as to the best way of offering this course. This committee reported in favor of a course of two lectures a week to be given by several professors and by a

few alumni and others. The object of the instruction was to present very concretely a number of important examples of engineering problems, methods, and accomplishments. in a manner to assist the students to understand what engineers do. It was hoped that these discourses, supplemented by suggested references for reading, would encourage and support the ambitions of all the pre-engineering students who should find in these talks about engineering confirmation of their interest in it. On the other hand, in any large group of engineering freshmen there are sure to be some who will find on acquiring a more exact knowledge of what engineering is that their choice of engineering was not on valid grounds of interest or ability. It was hoped that this course would aid any such students by giving them the advantage of an early opportunity to learn more definitely what engineers do. The lectures were as follows:

DATE	SUBJECT	LECTURER	
February			
6	The Engineering Profession	Dean G. B. Pegram	
II	Business of Electrical Engineers	Professor W. I. Slichter	
13	Field of Chemical Engineering	Professor D. D. Jackson	
18	Industrial Reorganization	Professor W. Rautenstrauch	
20	Mechanical Power and Modern		
	Civilization		
25	Field of Mining Engineering		
27	Metallurgy—What It Is	Professor T. T. Read	
March			
4	General and Structural Engineering	Professor J. K. Finch	
6	Projects and Men	Professor W. I. Slichter	
ΙI	Chemical Engineering Accomplish-		
	ments	Professor D. D. Jackson	
13	Mining Engineers and What They Do	Professor T. T. Read	
18	Motive Power in Transportation	Professor R. T. Livingston	
20	Social and Cultural Requirements		
	of an Engineer	Dr. Ellwood Hendrick	
25	Reorganization of an Instrument		
	Company		
27	Metallurgists and What They Do .	Professor T. T. Read	

April		
I	Hydraulic Engineering	Professor J. K. Finch
3	Television	
8	Air Products	Professor D. D. Jackson
10	Typical Mining Engineering Projects	
15	Machinery and Production	Professor R. T. Livingston
22	Administration of a Foods Product	
	Company	Professor W. Rautenstrauch
24	Metallurgical Projects	Professor T. T. Read
29	Roads, Canals, Tunnels, and Rail-	
	roads	Professor J. K. Finch
3.6		
May		
I	Professional and Honorary Engineer-	
	ing Societies	Mr. C. E. Davies, Assistant Secretary A.S.M.E.
6	The Profession of Engineering	
		C.E., 1882
8	Industrial Research Laboratories	E., 1920; Ph.D., 1923.
13	Geology and Engineering	Professor C. P. Berkey
15	Shall I Be an Engineer?	
	Opportunities and Remuneration	

Under the Statutes and in accordance with regulations of the University Council, adopted in 1916, the Faculty of Engineering is authorized to recommend candidates for the degree of Master of Science. Prior to 1917 this degree was awarded for specialized graduate work under the direction of an engineering department, but with the introduction of the three-year engineering course based on three years of preengineering collegiate study, the Faculty felt that the continuation of the M.S. degree would be in competition with the engineering degrees on their new basis. The Master of Arts degree in engineering subjects was still available under the Faculty of Pure Science, under the provision that the candidate must already have had a first or Bachelor's degree in the same field; graduation from a civil engineering course, for example, did not qualify the student for admission as a candidate for the A.M. in mechanical engineering. In 1920 the three-year curriculum in industrial engineering was first offered, and rather than introduce

a new degree, Industrial Engineer, it was decided to award the degree of M.S. on the completion of this curriculum. which was laid down on exactly the same lines as the other engineering curricula. In 1916 the Faculty decided to recommend for the M.S. degree the officers of the United States Navy who completed the year of graduate study here in electrical or mechanical engineering, following a year at the Post Graduate School of the United States Naval Academy. Now the Faculty has approved for next year another curriculum leading to the M.S. degree, namely, one in mineral dressing. This subject, that includes the concentration of ores and the concentration or cleaning of many minerals, has been developed in the School of Mines and for some years a program of study with some specialization in oredressing has been offered as an option under the Engineer of Mines degree. Properly to develop the subject of mineral dressing requires, however, not the basic training of a mining engineer, but more specialization in physics and chemistry, and freedom to forego some of the traditional studies in mining that are proper and essential for the mining engineer. Thus for a well-designed program of study in mineral dressing the degree of Engineer of Mines does not seem appropriate. Obviously a man competently trained in the handling of ore or other minerals after removal from the earth need not be trained in mine ventilation, mine safety, excavation and tunneling, and various other subjects that are characteristic for the mining engineer.

The use of the M.S. degree under the Faculty of Engineering may be expected to increase, as it is a proper reward for the completion of one year or more of specialized graduate study for the student who has already attained a B.S. in the same branch of engineering, or its equivalent. The A.M. degree in engineering subjects is not wholly satisfactory. Whether or not this faculty will be willing to accept for a candidate for the M.S. degree as free and as individual a program as is accepted for the A.M. degree is a question that will need discussion. It would not be illogical for the Faculty to keep the M.S. degree on its present basis, to be awarded

on the completion of programs as definitely specified as those for the engineering degrees, since this would guard against too narrow specialization and sustain the professional nature of this degree from the professional school of engineering. On the other hand, a freer selection of studies would better meet the needs of many well-qualified graduate students.

In previous reports reference has been made to our largely undeveloped opportunity to be of educational service to graduate engineers who live and work in the metropolitan region by offering late afternoon or evening instruction dealing with important special topics in engineering. It is a pleasure to report that two new courses of this type are to be offered in the late afternoon or evening. The first of these is a course running through the year on Friday evenings, entitled "Fuel Technology," and conducted by Professor J. J. Morgan, of the Chemical Engineering Department. In the Winter Session, solid and gaseous fuels and their production, distribution, and utilization are discussed, and in the Spring Session the work is on liquid fuels, mainly petroleum and its products. The theory of combustion and the technology of furnaces and fuel appliances and broader topics, such as the relation of fuels to public utilities form part of the course.

The other new course of this type for graduate engineers is to be given Thursday afternoons in the Spring Session by Professor T. T. Read, of the School of Mines. The subject is mineral economics, covering such topics as the marketing of minerals; effect of quality; the place value of minerals; the present organization of mineral selling; international control; freights; taxation; possibilities as to future mineral supply, and numerous other topics.

An important enterprise in engineering education is that of the summer schools for teachers of engineering subjects conducted by the Society for the Promotion of Engineering Education. In the summer of 1930 there were two such schools, one for teachers of civil engineering, at Yale University, and one for teachers of drawing and descriptive geometry, at the Carnegie Institute of Technology. At the former, Columbia was represented on the staff by Professor J. K.

Finch, who presented two discussions of objectives and of classroom and field methods in teaching surveying. Professor M. I. Pupin was on the program of general lectures. Professor C. H. Schumann was on the staff of the Pittsburgh school. He lectured on the recitation method in teaching descriptive geometry and led the discussion at a session devoted to a paper on tests of achievement in descriptive geometry.

Since 1917 examinations in all classes in the School of Engineering have been conducted under an honor system that developed from a system previously applied in the senior class only. In 1921, on the motion of the students, the honor system was extended to cover all tests, laboratory work, and reports, and in general all work which the instructor assigns for testing or rating the individual. The responsibility for the operation of the honor system has been on an Honor System Committee, composed of elected representatives from each class. The honor system has not been obligatory on each incoming class. The privilege of working under it has been granted on petition signed each year by not fewer than four-fifths of the incoming class.

It is well known that an honor system will not make every student act honorably at all times. The number of cases in which disciplinary action has been taken on recommendation of the Honor Committee has not been insignificant. In a student body of less homogeneous academic background, of less training in measuring and recording facts as they are, an honor system might work very poorly, but so would and so does any other system of control of such matters. There seems to be no reason to believe that our honor system is not operating better than any other practical system in the minimizing of dishonesty. It has further the prime advantage of training in the acceptance of standards of action that befit an engineer perhaps even more than other men.

Another student organization of which the management generally falls into the hands of the same individuals as constitute the Honor System Committee is the student Engineering Society, which holds meetings for social purposes and to hear addresses by engineers and others. The group of leading students who were this year active in the Honor System Committee and in the Engineering Society concluded first that certain simplifications in the operation of the honor system should be brought about, and, next, that the two organizations should be brought together and the management of both placed in the hands of a Student Council of thirteen members elected by the reconstituted Engineering Society, consisting of all members of the student body. This council membership is rather large, but it seemed needed to give close contact with each class and with each division, civil, electrical, etc., of each class. The proposed changes were approved by the student body and ratified by the Committee on Instruction, to which committee the Faculty had referred the proposals with power. The new Student Council, besides administering more simply the honor system and the usual business of the student Engineering Society, constitutes an agency through which cooperation between the student body and the Faculty in various matters can be more easily effected. Much credit is due to the chairman of the Honor Committee this year, Mr. Clifford F. Curran, C.E., 1930, to the chairman for next year, Mr. Stephen R. Bradley, and to the other members of the Committee for bringing about this reorganization.

The entertainment of invited students from preparatory schools and high schools in the metropolitan district, through an afternoon and evening by our own students, which has been made possible through the aid of Mr. Milton L. Cornell and other alumni, was set at March 7, an earlier date this year than heretofore, with good effect on the attendance. One hundred and ninety-one school boys came, delegated by eighty-nine schools. They visited laboratories, heard an address by Professor Robert T. Livingston, and dined in John Jay Hall with our students and some of the Faculty. It is hoped that all these school boys were benefited by this opportunity to see for themselves what the Columbia School of Engineering and Columbia College are like. On Mr. Clifford F. Curran, president of the student Engineering Society,

fell the chief burden of arranging for this visit by the school boys. To him and his aides the School of Engineering is indebted for carrying out so well their undertaking. Naturally a number of the school boys who come on these visits, on nomination of the heads of their schools, are boys who intend to enter Columbia University. Of the 136 who came in 1929, 17 were registered here this year as pre-engineering students.

In September, 1929, Colonel William B. Thompson, a former student in the School of Mines, through his friend Mr. Henry Krumb, another well-known alumnus, made a gift to the University for the School of Engineering of securities worth over a hundred thousand dollars. Fifty thousand dollars of this gift was to be applied to the purchase of a large materials testing machine, the need of which has been greatly felt; fifteen thousand was to go to equipping new metallurgical laboratories in the School of Mines; and the rest to the support of measures that may be judged most effective toward increasing the number of students of high ability and promise in attendance in the School of Engineering. This generous gift, the largest yet made to the School of Engineering by a former student, meets three very definite existing needs. The expenditures from this fund for new equipment for research and instruction in metallurgy have already been made and the new laboratories will be in full operation, under the charge of Professor Jette, with the opening of the next session. They are equipped especially for the study of metals by the use of X-rays.

The portion of the Thompson gift that is to be used toward increasing the number of well-qualified students will be expended under the direction of President Butler with the advice of a committee composed of Messrs. Milton L. Cornell, Henry Krumb, John Balet, alumni, Mr. Frederick Coykendall, Trustee, and the Dean. As to the third of the needs that will be met by the Thompson gift much study has been given by the Department of Civil Engineering to the question of the best type and design of a large testing machine to meet the needs of investigations in this community where larger and larger structural elements of steel and other materials are coming into use.

The urgency of the question as to a new building to house the testing laboratories of the Civil Engineering Department, including the large testing machine, has led to a broader study of the building needs of the School of Engineering. A building on the Green, along 120th Street, near Amsterdam, that would balance the Physics Laboratories, would house adequately the Departments of Civil Engineering, including testing laboratories, Electrical Engineering, and Engineering Drafting, also the engineering library and the Dean's offices. It has been proposed to erect a portion of such a building sufficient to house adequately the new large testing machine and the other equipment of the materials testing laboratories, but this proposal has been set aside pending a wider study of the probable future needs of the School of Engineering.

The celebration last fall of the 175th anniversary of the founding of King's College was shared in by the School of Engineering in numerous ways, some of them as follows: General William Barclay Parsons, C.E., 1882, Chairman of the Trustees of the University, made the address on engineering in the series of seventeen addresses setting forth the progress of knowledge in the past twenty-five years. Among the portraits presented to the University in honor of this occasion by groups of graduates and others were those of five alumni distinguished in engineering, two of whom had long service on the Engineering Faculty. These portraits are of Horatio Allen, Class of 1823, a pioneer American canal, railroad, and mechanical engineer who brought from England and operated the first steam locomotive in America; Alfred Wingate Craven, Class of 1829, early railroad engineer, first chief engineer of the Croton aqueduct; James Renwick, Class of 1836, architect of St. Patrick's cathedral and of Grace Church; Michael Idvorsky Pupin, Class of 1883, long Professor of Electromechanics, and now Emeritus Professor in Residence; James Furman Kemp, E.M., 1884, long Professor of Geology. In the list of honorary degrees of Doctor of Science conferred by the University on this occasion were seven engineering alumni and five professors whose work is chiefly in engineering.

The engineering reading room was the center of historical exhibits in the applied sciences as prepared for the Anniversary

celebration, particularly exhibits relating to the work and times of four Columbia graduates who rank high among the pioneer engineers of America-John Stevens, James Renwick, Horatio Allen, and Alfred W. Craven. This exhibit was arranged by Miss Granville Meixell, supervisor of applied science libraries, with the cooperation of Professor James Kip Finch, who wrote an appreciation of the four early engineers cited above which was published in very attractive form on the occasion of the celebration. An alumni luncheon and also an afternoon reception were held in the engineering reading room in the week of the celebration. Exhibits of historical and other material were also shown in the Egleston Library in the School of Mines. Finally, the Trustees marked the occasion for the School of Engineering by naming three professorships in engineering in honor of former distinguished professors, namely: the Renwick Professorship of Civil Engineering, in honor of James Renwick, Professor of Natural Philosophy in Columbia College and an engineer; the Vinton Professorship in Mining, in honor of Francis L. Vinton, first Professor of Engineering in the School of Mines; and the Stevens Professorship of Mechanical Engineering, in honor of John Stevens, graduate of King's College, who became a pioneer American mechanical engineer. Professor J. K. Finch was appointed the Renwick Professor of Civil Engineering; Professor T. T. Read, the Vinton Professor of Mining; and Professor C. E. Lucke, the Stevens Professor of Mechanical Engineering.

The submission of this annual report is the final official duty of the present Dean, whose resignation from this administrative office was accepted by the Trustees in February. For a year and a half as Acting Dean and twelve years as Dean it has been my privilege and honor to work for the School of Engineering with the President and with my colleagues of the Faculty and to receive the aid and support of other administrative officers of the University and of Trustees and alumni. To all these I wish here to affirm my indebtedness and to render grateful thanks. Of the students who in these years have matured and developed here under the guidance of my colleagues, so many have already estab-

lished themselves as competent and worthy engineers, so many have attained high distinction for their years, and so many others are sure to do so, that I regard myself most fortunate to know them and to be in a position to take pride in their accomplishments.

The duties and responsibilities of no other two University positions could be more attractive to me than those of the deanship and the professorship I have held. But the School of Engineering has come to need the full time and energy of its Dean, not only for duties inside the University but also for making and strengthening those relations with industry and engineering that should bring strong support to the School, both for its training of future engineers and for its effort to advance knowledge by research. At the same time the Department of Physics needs the full time and attention of its executive officer, for this department has grown rapidly in its new laboratories. For reasons easy to adduce it was appropriate to make opportunity for appointment to the deanship of an able and vigorous man who should devote his whole energy and ability to the duties and opportunities of this position.

Such an appointment was made by the Trustees at their March meeting, in naming Joseph Warren Barker, B.S., 1916, M.S., 1925, Massachusetts Institute of Technology, to be Dean from July 1, 1930. Dean Barker has for the past year been Professor of Electrical Engineering and head of the department in Lehigh University, going there from the staff of that outstanding Department of Electrical Engineering at the Massachusetts Institute of Technology. In the war he was an artillery officer, serving in France, and after the war he remained in the United States Army for several years, resigning in the rank of Major. With Dean Barker leading we expect to go forward into new developments that will require and will have the most loyal adherence of his faculty colleagues and the staunch support of Trustees and alumni.

Respectfully submitted,

GEORGE B. PEGRAM,

Dean

FACULTIES OF POLITICAL SCIENCE, PHILOSOPHY, AND PURE SCIENCE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

As Dean of the Faculties of Political Science, Philosophy, and Pure Science, I have the honor to submit the following

report for the academic year ending June 30, 1930:

I speak first of our personnel losses in the retirement during or at the close of the year of Professors John Dewey, Robert Almer Harper, and Henry Ludwell Moore. It would be both superfluous and venturesome for me to attempt to strike off in a few words an appraisal of John Dewey. I restrict myself to facts of common knowledge. His contributions to philosophy, to educational theory, and to problems of current public concern have placed him, during his twenty-five years of happy association with us, among the foremost leaders of thought not only in his own but also in any age. Though essentially a philosopher of method rather than of system, his manifold accomplishments in the field of philosophy, taken in their totality, are nevertheless relatively systematic. Logical concepts he dissected and reworked; the theory of knowledge he penetratingly criticised and reconstructed; to a reconsideration of the problems of ethics he joined psychology, sociology, and law; social and political philosophy he analyzed upon the basis of the facts of social behavior; his fresh insight into the problems of the history of philosophy so linked philosophical ideas with social and political actualities that his contribution to the history of philosophy is in itself immeasurable. As a leader in the realm of educational theory his influence has leaped national boundaries the world over. Among the younger generation of American philosophers perhaps those

who disagree with him owe him greater debt than those who agree. The University is grateful to have been the precinct from which John Dewey fired so many of his luminous bolts. Fortunately he is not wholly lost to us; he becomes Emeritus Professor of Philosophy in Residence. While breath survives his quiet voice of wisdom and of guidance will be heard among us.

Foremost authority in the world on the cytology and physiology of the lower plants, especially the fungi, Professor Harper was first to demonstrate by cytological methods that sexuality exists in the fungi as in the higher plants. Where others saw only objects he discerned and explained the intricate physiological processes of reproduction. His researches and discoveries in this field are unparalleled in the history of mycology. More recently his interests and his contributions have been in the field of morphogenesis. A great scientist, a great teacher and inspirer of students, he has also been a statesman among botanists; for his counsel has been constantly sought by and generously given to many institutions and organizations devoted to the advancement of botanical The New York Botanical Gardens, the Boyce Thompson Institute for Plant Research, the Tropical Plant Research Foundation, the Marine Biological Station at Woods Hole, Botanical Abstracts, now Biological Abstracts, and the Division of Biology of the National Research Council are all heavily in his debt. As full of vigor as when he joined us in 1911, he remains to yield himself exclusively to the lure of his laboratory.

In his highly technical field of mathematical economics Professor Henry L. Moore has for years been writing for the few in the interest of the many. The scent of cube roots and of the calculi of probability in matters economic, though neither savory nor sensible to the plain man, may yet be of great significance to him. In numerous studies the competence of which has been recognized by scholars throughout the world, Professor Moore has demonstrated that it is. His regrettable retirement means not his loss to scholarship but the loss to students of his engaging and stimulating personality.

Among our personnel gains I record the appointment of Salo Baron as first incumbent of the Chair of Jewish History, Literature, and Institutions and the assignment of this chair to the Department of History. Doctor of Philosophy and Doctor of Jurisprudence of the University of Vienna, formerly professor at the Jüdisches Pädagogium in Vienna and at the Jewish Institute of Religion in New York, Professor Baron brings to his wide and important task the scarce combination of youthful enthusiasm and scholarly ripeness.

Five visiting professors were welcomed to our spiritual companionship during the year. As Visiting Professor of Religion, Vittorio Macchioro, Professor at the University of Naples and specialist in Greek mystery cults, joined that notable group in the Department of Philosophy who are applying historical, sociological, and interpretative methods to the study of religion as a human phenomenon rather than as a body of theological belief. It is our community good fortune that Giuseppe Prezzolini, Visiting Professor of Italian and formerly Chief of the Information Section in the International Institute of Intellectual Coöperation of the League of Nations, is to remain in our midst as Director of the Casa Italiana. Professor E. Allison Peers, of the University of Liverpool, was Visiting Professor of Modern Comparative Literature. During the Winter Session, Alphons Hilka, Professor of Romance Philology in the University of Göttingen and editor of the Zeitschrift für Romanische Philologie, was Visiting Professor of French. He was followed in the Spring Session by Professor Antoine Meillet of the Collége de France, doubtless foremost among living students of linguistics.

I take it that one of the things that should be looked for in a report of this kind is a record of what our scientists and scholars have been doing apart from teaching. Yet it is practically impossible shortly to sketch in words the course of the innumerable currents of scholarly thought and endeavor that constitute a single year's work of our three Graduate Faculties. Many researches are under way which are properly unknown save to one or a few. Many which are known need not, and in most instances should not, be reported until they

have leafed into tangibility for the world of scholars and scientists. Such work as ours does not lend itself to calculation by solar or academic years. An apparently dry season of produce for man or department may in fact be peculiarly fertile toward some future season's output. Hence the inevitable incompleteness of any résumé of a year's activities. I nevertheless chronicle the following items of University interest.

The extension to Schermerhorn Hall was completed during the year and the original building was extensively remodeled interiorly. Of necessity, readjustment to the new and vastly superior housing conditions seriously interfered with the scientific work of the Departments of Anthropology, Botany, Geology and Mineralogy, Psychology, and Zoölogy. Even so, substantial achievements may be recounted.

No mere physical inconvenience could dim the enthusiasm or balk the energy of Professor Boas. He has continued to inspire and direct the researches of his students—one might almost say disciples—in various parts of the world. As Chairman of the Committee on Research in Native American Languages, under the auspices of the Council of Learned Societies, he has likewise continued to direct the work of an organization that is doing much to rescue for posterity invaluable information in respect of the vanishing American Indian languages.

In the field of botany events moved. We extended our greetings to Dr. Elmer Drew Merrill, who succeeded Dr. Britton as Director of the New York Botanical Gardens, by assigning him to a seat in the Faculty of Pure Science. It is perhaps not too early to report also that the Trustees of the Gardens are considering a broad extension of strictly scientific researches and to that end are looking forward to a closer and less complicated affiliation with the University than now exists. In this endeavor they are assured of our unstinted coöperation.

Professor Harper's researches on the effects of environmental stimuli on cell growth and multiplication as contrasted with organization and integration are outlined more fully in my report on allotments from the Special Fund for Research which is hereto attached. Professor Trelease has given much time to planning and developing a uniquely and adequately organized roof greenhouse and laboratory for the study of plant physiology, which will be of great assistance to the Department. In connection with his studies on the cytology of secretion and the formation of gums and latex in plant tissues Professor Karling spent the summer of 1929 on experimental work in British Honduras.

The activities of the Department of Geology and Mineralogy are not easily briefed. Professor Berkey's continued interest in the geology of Central Asia found expression in several articles, while his services as a pure scientist in the applied field of engineering were attested by his membership on the Colorado River Board, which is concerned with the problems of Boulder Dam; the Advisory Board of Engineers of the California Department of Public Works, which is concerned with the Mulholland and the proposed San Gabriel Dams; and by his offices as geologist for the Metropolitan District Water Supply Commission of Boston, the North Jersey District Water Supply Commission, the Port of New York Authority, and the Board of Water Supply of the City of New York.

Professor Douglas Johnson, on leave for the year, toured the globe making investigations in South Africa, Australia, New Zealand, Java, China, Japan, the Hawaiian Islands, and in southwestern United States. He was heartily received by his geological colleagues in other lands and delivered addresses before numerous scientific bodies. His *Studies of Mean Sea-Level* among other things dispels the current notion that the Atlantic coast is subsiding at the rate of one or two feet per century. Every member of the University could find interest and profit in his monograph *The Geographic Prospect*.

Professor Kerr's discovery, jointly with a representative of the United States Geological Survey, that kaolin, a material used for the manufacture of chinaware, is not a single substance but includes a group of three minerals, identical in chemical composition but differing in crystal structure, may have considerable influence upon the ceramic industry. Incidentally, the X-ray equipment for mineral investigation now established in Schermerhorn is probably superior to that of any other educational institution. Professor Colony has served as geologist for the Saratoga Springs Commission and for the Board of Water Commissioners of Wilmington, Delaware.

Despite the difficulties of relocating laboratories and other equipment, the various researches of the Department of Zoölogy have made satisfactory progress. The results of Professor Wilson's reëxamination of the centricles in animal cells, the existence of which as distinct entities had been challenged by some recent students of cytology, fully confirmed his former conclusions. A signal event was the expedition to central Africa undertaken in conjunction with the American Museum of Natural History to secure and preserve the two types of gorilla, the mountain form of the Eastern Belgian Congo and the better known West Coast variety. Professors McGregor and Gregory and Mr. H. C. Raven were of the party. The expedition was successful and the material secured will form the basis of comparative anatomical studies which have never before been made.

Thirty articles published in scientific journals during the current year embodied the fruits of some of the researches of members of the Department of Chemistry. Among these may be mentioned, as being of interest to others than chemists, the research of Professor Sherman and Dr. H. L. Campbell demonstrating a positive relation of food to longevity due to certain chemical factors which are now being further investigated. Professor Urey, jointly with Dr. A. E. Ruark, has published an advanced treatise on Atoms, Molecules, and Quanta. Professor Sherman spent some time in detached University service with the School of Tropical Medicine in Porto Rico assisting in the formulation of a project for the investigation of food and nutrition conditions, which is planned as one of the major services of the School to the solution of the medical and health problems of the tropical world. researches of Professors Beans and Hammett and Dr. Walden have produced a new synthetic resin of unique properties.

Professor Hammett's volume Solutions of Electrolytes, marks an important forward step in the use of higher theory in experimental chemistry. It is a satisfaction to record that Professor Fink's method for the restoration of disintegrated bronze works of art is now being used in all the large museums of the world.

In physics, Professor Bergen Davis continued his investigations on the fine structure of X-ray spectra using for this purpose the powerful two-crystal X-ray spectrograph which he has developed and which, as a result of his work here, is now being employed in other laboratories as well. Professor Pupin's *The Romance of the Machine* found the welcome reception that anything from his pen is sure to receive and deserve. Professor Wills has turned over to his publishers a volume on *Vector Analysis and Some of Its Applications*.

The departments of the Faculty of Pure Science which operate at the Medical Center are year by year working out with increasingly gratifying results the difficult problem of the relationship between the training of practitioners of medicine and the advancement of the sciences upon which the art of the practitioner is predicated. The problem is not less important because it is not novel. Differing in material and method, it is nevertheless identical with the problem of schools of law. In both fields events are swiftly developing. Already an actual majority of university teachers of medical sciences and investigators can append no medical doctorate to their names; they are scientists, not physicians. Already schools of law are drawing to their assistance scholars trained in the social sciences rather than in legal technique. Nowhere have these movements gone farther than here at Columbia.

The researches of the Department of Bacteriology fructified in the publication of thirty-five articles during the year just past. Two were extensive monographs by Professor Gay on the principles underlying infection and immunity and the mechanism of bodily resistance to disease. Eight dealt with the still mysterious ultra-microscopic though living filterable viruses which affect the central nervous system, such as those of infantile paralysis, encephalitis, and hydrophobia. Seven

treated of fungus infections. Three reported researches on experimental tuberculosis. Three discussed the importance of the mononuclear cells of the body in defense against invading bacteria. Two related to protozoan infections. Six dealt with scattered bacterial topics. Of fundamental importance were the oxidation-reduction studies, recently supplemented by spectroscopic analysis, by Professor Coulter and his assistants.

Important researches have likewise gone forward in the Departments of Anatomy, Biological Chemistry, Pathology, and Physiology; but most of these are not of the kind which at the present stage of their progress can be briefly described here.

Turning to the field of the social sciences I record the appointment of Professor Mitchell as Chairman of President Hoover's Research Committee on Social Trends, the election of Professor Greene as President of the American Historical Association and of Professor Hayes as President of the History Teachers' Association of the Middle States and Maryland, and the selection of Professor Jessup as special counsel to the American Embassy in Cuba for the study of international problems in the Carribean. Professor Seligman, having accepted an invitation from the Cuban government to lecture on taxation at the University of Havana, was cordially received by the scholars and officials of our island neighbor to the south. Professor Chaddock has served on the executive committee appointed by the Secretary of Commerce to prepare the schedules for the 1930 census.

Among books published by members of the Faculty of Political Science may be noted: Professor Westermann's Upon Slavery in Ptolemaic Egypt, a study of a papyrus fragment of an ordinance of Ptolemy V of about 198 B.C. fixing the amount and incidence of the transfer tax on slaves, there being no similar document known from ancient times; Professor Hayes's France: a Nation of Patriots, being one of the series of postwar studies of France under his editorship; Professor Lynn Thorndike's Science and Thought in the Fifteenth Century; the first volume of Professor Carman's Social and Economic History of the United States; Professor Henry

L. Moore's Synthetic Economics; Professor Angell's The Recovery of Germany; and a new and revised edition of Professor Shepherd's Historical Atlas. The first volume of the mammoth Encyclopedia of the Social Sciences, which is being prepared under the chief editorship of Professor Seligman, was published during the year, containing in addition to its alphabetical beginnings, introductory articles of profound importance by Professors MacIver and Westermann.

Professor Woodworth brought out an entirely new edition of his widely used *Psychology*, and Professor Garrett published *Great Experiments in Psychology* which will occupy an impor-

tant place among reference works in this field.

Professor Woodbridge's study of Plato was published early in the year under the title *The Son of Apollo*. The high praise and the acrid criticism which it evoked clearly demonstrate that there are at least two schools in the study of ancient thought. Professor McKeon, who is developing the important field of medieval philosophy, brought out two volumes of newly translated extracts from the medieval treatments of the theory of knowledge. Professor Randall's volume on religion naturally met both favor and fury. Professor Parkhurst's interpretation of art and the imaginative life found expression in a volume entitled *Beauty*.

In the broad field of the humanities, a large record must be compressed in a few paragraphs. Professor Odell has advanced his monumental work on *Annals of the New York Stage* to the point where the fifth, sixth, and seventh volumes are in the press. Under the managing editorship of Professor Patterson, four volumes of the *Milton* will appear this autumn. Professor Patterson was also the moving spirit in organizing the Facsimile Text Society, the first publications of which appeared in the spring. The initial volume of the proposed Anglo-Saxon poetry, under the editorship of Professor Krapp, is in press. Professors Ayres and Greet have continued their interesting work of making records of American speech.

With the publication of the seventeenth volume of the results of a five years' survey of modern language instruction in the United States and Canada, Professor Fife's prodigious

labors as chairman of the committee charged with this all-important inquiry were brought within hailing distance of conclusion. As Secretary of the Germanistic Society of America, Professor Heuser has continued his activities in the cultivation of cultural relations between Germany and America. Professor Barnouw's work on the medieval Dutch history Bible and Professor Fife's work on the correspondence of Ludwig Tieck have steadily progressed. Professor Puckett's Germany's Women Go Forward is a source study of the feminist movement in Germany.

The publication of Professor Livingston's inherently interesting *Memoirs of Da Ponte* is of special interest to Columbia as throwing light upon the extraordinary life and personality of our first Professor of Italian. Professor Muller published the *Chronology of Vulgar Latin* and Professor Gerig, a book on *Antoine Arlier and the Renaissance at Nimes*.

As President of the American Oriental Society, Professor A. V. Williams Jackson delivered before that body an address on "The Manichaean Doctrine of a Future Life." He was chosen Honorary Vice President of the International Exhibition of Persian Art, to be held in London next year, the Shah of Persia being Honorary President. Under the title Foundations of the Iranian Religions, Professor Gray published at Bombay his Katrak Lectures delivered at Oxford in 1925. Professor Van Hook was elected to membership on the Agora Commission, responsible for the excavation of the old market place in Athens, and was invited to serve as Annual Professor at the American School of Classical Studies in Athens.

Such, Sir, are some of the fingerprints of activity and accomplishment by which the year 1929–1930 may be identified in our annals. I regret the necessity of reducing to cataloguelike recital so many things of intrinsic interest and import.

Among the American professorial guild the time-consuming character of university administration has long been a matter of criticism and reproach. The time of scholars is precious. So also is the time of administrators, though that point is not so commonly stressed. Yet important questions of edu-

cational policy, which are properly the scholars' care, can not be satisfactorily settled without a meeting of minds. It takes time for minds to meet—even quick minds, which all are not. There are dangers in any choice between the scholar's right to be let alone and the University's right to ask his aid in matters administrative. I have sought to steer a median course. I have avoided and abbreviated committee meetings whenever that seemed possible. I feel confident, however, that nothing has been done without the agreeable understanding of those concerned and that no one has been deprived of the opportunity to say his say and to have it considered with respect. Unlike legislative assemblies, a democracy of scholars does not draw the breath of its life from an invitation, not to say a compulsion, to palaver, however human it may be to include this weakness whenever and wherever men gather.

In his last report Dean Woodbridge commented upon the address which had recently been made to the graduate schools of the country by the Association of American Colleges in the interest of securing better-prepared college teachers. A survey that I made of the occupations of those who have received our degree of Doctor of Philosophy since 1923 showed that, exclusive of those in the field of educational research, approximately 69 percent of them are teaching. The percentage differed less widely among departments than might have been expected. It differed far less in fact than did their views of what could or should be done. These views, supplied at my solicitation, it is impossible to summarize. They may nevertheless be broadly characterized as making a wide pendular sweep from hostility through indifference to sympathy, if not conviction.

To the end of exploring this difficult problem of college teacher deficiencies and teacher training as far as might be, Dean Hawkes, Dean Russell, and myself called into informal conference a small group of those in our midst whom we thought highly competent to lend light. Under the chairmanship of Professor Coss this group held many meetings. Though its labors are concluded I forbear remark until its report has been received except to say that I shall have large confidence in its findings.

Having pursued the established practice of actively seeking suitable candidates for the Cutting Traveling Fellowships instead of relying wholly upon chance applications, I nominated and the Trustees appointed the following four: Charles Kenneth Eves, A.B., Rochester, 1913, Lecturer in English in University Extension, Columbia, 1923-1930; Howard R. Marraro, A.B., Columbia, 1923, A.M., 1925, Instructor in Italian, University Extension, Columbia, 1929-1930; Maxwell H. Savelle, A.B., Columbia, 1925, A.M., 1926, Instructor in History, University Extension, Columbia, 1925-1926; Instructor in History, Barnard, 1926-1930; Horace Taylor, A.B., University of Oklahoma, 1921, A.M., Columbia, 1924, Ph.D., 1928, Lecturer and Instructor in Economics, Columbia, since 1924, Assistant Professor of Economics, 1928-1930, Assistant to the Dean of Columbia College, 1927-1930. I append hereto a report on the work of Carl A. Bayerschmidt, Jacob J. Beaver, Henry A. Ladd, and Thomas P. Peardon, who held Cutting Fellowships during the year.

I accompany this report with the reports to the University Council of the research activities under the direction and control of the Council for Research in the Social Sciences and the Council for Research in the Humanities.

I append also a report on the work of those to whom allotments were made from the Special Fund for Research. These allotments were spent for research assistants, technicians, special apparatus, technical analyses, purchase and care of experimental animals, raising and care of plants for experimental purposes, travel in the interest of securing research material, photostatic reproductions, rotographs, publication, editorial work, photographic studies, and the purchase of books. Among publications growing out of these researches are thirty-four contributions to scientific journals, two medieval records translated and edited, one of a series of foreign language review texts, one bibliography, two doctoral dissertations, and several addresses delivered before various scientific congresses and published in their proceedings or archives.

Convinced of the beneficent purpose and great utility of this

Special Fund for Research I am nevertheless not wholly complacent with the manner of its administering. More than one tough problem is here involved to which I shall continue to give thought in the hope of betterment if not of solution.

In the interest of continuing the annual notation I record that the registration of students under the Faculties of Political Science, Philosophy, and Pure Science, including the Summer Session of 1929 and a few students registered primarily under other faculties, was 4,130 as compared with 3,813 for the preceding year. The registration for the Winter and Spring Sessions alone was 3,247 as compared with 2,973. The number of new students was 1,432 as compared with 1,295. The number of degrees conferred was as follows: Master of Arts, 684 as compared with 623; Doctor of Philosophy, 184 as compared with 190.

In conclusion, Sir, I should be ungracious and ungrateful if I failed to voice my measureless appreciation of the comprehending cordiality with which my colleagues have received and coöperated with me. We of these Faculties are a large and ramifying group. Unavoidably we lack, and shall always lack, the coherence of interest that is enjoyed by many of the other University units. Our prime common bond is our pursuit of knowledge, however widely variant its paths. Along many of these paths I am, and of necessity shall continue to be, not more than an interested stranger. But I have been made to feel no sense of strangeness among the human beings who tread them as of expert right.

Respectfully submitted,

HOWARD LEE McBAIN,

Dean

June 30, 1930

SPECIAL FUND FOR RESEARCH

REPORT OF THE CHAIRMAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to submit the following report on the researches for which allotments were made from the Special Fund for Research during the academic year ending June 30, 1930:

Professor Adriaan J. Barnouw's work on an edition of the first Middle Dutch Bible.

Photostatic reproductions have been made of the seven manuscripts at Leyden, Utrecht, Paris, and Copenhagen, and a copy has been made of the Middle Low German version of the same text which is preserved in manuscript in Lübeck.

Publication:

No. I of the *Germanic Review* texts—one chapter of this history Bible under the title "A Middle Low German Alexander Legend" with introduction and notes. Columbia University Press, 1929.

Professor Frederick Barry's investigation of thermal effects due to the condensation of water vapor upon metallic surfaces of gold.

In an investigation of the conditions necessary for the maintenance of the adiabatic condition in calorimetric operations, conducted in 1922, Professor Barry observed that if he introduced liquid water into the previously dry air gap of his calorimetric system, the temperature of the calorimeter rose by an amount corresponding to approximately thirty calories. He ascribed this liberation of heat to the condensation of water vapor upon the external surface of the calorimeter and showed that the quantity of heat liberated varied with the physical and chemical condition of the surface. The problem was controversial and Professor Barry undertook this year to measure with some precision the effect described in order to decide: (a) whether the phenomena had been correctly observed; (b) whether it was due to simple condensation of vapor upon metal or if chemical contamination of the surface was responsible for the abnormal

heat; (c) if the liberation of heat was not due to chemical contamination, should it be ascribed to an abnormally high molal adsorption heat or to the deposition of a large quantity of water? Special apparatus has been constructed for exact measurements and experiments have been conducted along these lines.

Professor Charles P. Berkey's Central Asiatic studies.

Reconnoissance studies, begun in 1925, have been continued and results are being prepared for publication as Volume III of the final report of the Central Asiatic expeditions of the American Museum of Natural History. The work will not be ready for publication until late in the year.

Publications:

Berkey, C. P., Granger, W., and Morris, F. K. "Additional New Formations in the Later Sediments of Mongolia," *American Museum Novitates*, No. 385, November, 1929.

"Orogenic Evolution of the Gobi Region of Central Asia." Chap. VII, pp. 206-12, in *Structure of Asia*, edited by J. W. Gregory. Methuen and Company, Ltd., London, 1929.

Professor John B. Brebner's study of British recruiting in the United States during the Crimean War.

The study is concerned with the dismissal of the British ambassador and three British consuls and the hitherto unexplored share in it of the Hon. Joseph Howe of Nova Scotia. Access to the Howe papers at the Public Archives of Canada has been secured. Arrangements have been made for publication of the results of this study in the *Canadian Historical Review*.

Dr. Matthew N. Chappell's studies on the nervous system.

The grant has been used for the care of animals for use in connection with two experiments. The first is a study of the recovery of functions following lesions in the nervous system. The second experiment was conducted in collaboration with Professor Frank H. Pike, Professor Charles A. Elsberg, and W. S. McCulloch, and was concerned with the problem of epilepsy.

Publications:

"On the Recovery of Functions following Lesions in the Central Nervous System," Science, January 17, 1930.

Papers on the general subject "Some Observations on the Experimental Production of Convulsions" were read at the Convention of the Association for Research in Nervous and Mental Disorders (to be published in the Proceedings of the Association and in the Archives of Neurology and Psychiatry); at the Congress of Physiology (to appear in the American Journal

of Physiology); at the International Congress of Mental Hygiene (to appear in the American Journal of Psychiatry). All of these papers are in press.

Professor Roy J. Colony's rock analyses.

Four complete rock analyses were made and incorporated in a paper on "Precretaceous Rocks in Ecuador." The paper nearing completion deals with the geology, never before described, of virgin territory on the east slope of the Andes Mountains.

Professor Henry E. Crampton's investigation of evolution phenomena in the islands of the Pacific.

The year's work is part of an extensive series of researches on variation, distribution, and evolution of certain land organisms of Oceania. In particular the material from the Samoan Islands and from Raiatea, of the Society Islands, has been fully analyzed and the biometric work has been completed.

Publication:

A volume on the Species of Moorea, Society Islands, is in press.

Professor L. C. Dunn's studies in Mendelian inheritance.

An experimental colony of mice numbering about one thousand individuals has been maintained by pedigree methods. Experiments are being conducted in breeding and crossing of pure and piebald stock in an attempt to discover the mode of inheritance of factors affecting spotting. One experiment, carried out in collaboration with Dr. E. C. MacDowell of the Carnegie Institution, who spent several months as a guest in the laboratories at Columbia, is a quantitative study of the relative effects of the same spotting factors when operating on yellow and on black pigments. This involved a breeding experiment of three generations and the preparation of five hundred skins of adult mice. The results of these experiments are being prepared for publication.

A second set of experiments was undertaken to determine whether certain factors concerned with spotting also affected the viability of the embryos and new-born young. Results of these experiments indicate that death from anaemia which is determined by the presence of one type of gene which affects also coat patterns, is not affected by the other type of gene which produces self or solid color.

Professor Austin P. Evan's work on the Records of Civilization.

The work has consisted in the critical reading of six manuscripts and the final preparation of one manuscript for the press.

Two manuscripts bearing on the problem of reconstruction in Languedoc after the Albigensian War and the confiscation of the goods of heretics,

together with an inquisitorial register dating from the early fourteenth century, have been photographed at the Bibliothéque Nationale. From the municipal archives of Toulouse a register of a series of guild statutes has been secured. The photostats of documents thus far procured provide a good collection for the study of heresy and its suppression in the thirteenth and fourteenth centuries.

Publications:

Hitti, Philip R. An Arab-Syrian Gentleman and Warrior in the Period of the Crusades: Memoirs of Usāmah ibn-Munqidh. (In press.)

Kenney, James F. Sources for the Early History of Ireland.

Muhlfeld, Helen. A Survey of the Manor of Wye. (In press.)

Sanford, Eva M. Solvian: On the Government of God. A translation.

Professor Robert Herndon Fife's edition of the Letters of Ludwig Tieck.

In addition to letters previously collected, photostatic copies of eightyone additional letters from Tieck and one hundred and forty-one to him, all unpublished, have been secured. Editing, copying, and annotating have been carried on in the seminar.

Publication:

One series of letters, the "Tieck-Raumer Correspondence," appeared in the Germanic Review, January-April, 1930.

The "Tieck-Solger Series" will be published as part of a doctoral dissertation.

Professor F. P. Gay's bacteriological studies.

Investigations of a condition described by Professor Gay and Dr. A. R. Clark as "enhanced passive immunity," have been conducted on guinea pigs and rabbits.

Publications:

Gay, F. P. and Clark, A. R. "Enhanced Passive Immunity to Streptococcus Infection in Rabbits," *Journal of Experimental Medicine*. (In press.)

Gay, F. P. "The Grades of Resistance and Immunity to Bacteria," Transactions of the Association of American Physicians.

Professor Evarts B. Greene's study of American population before the first census.

This is a continuation of a project previously undertaken. Further material has been collected, chiefly in the Public Record office in London. The form of publication is now being studied.

Professor John Hanna's survey of the operation of recording statutes.

Studies of business practice, legal devices, and judicial decisions in respect to the marketing of stocks and bonds and in respect to importing transactions have been made. The study of filing and recording statutes, except those relating to real estate, is practically complete. It was undertaken primarily to ascertain the best informed legal and business opinion as to the advisability of extending chattel mortgage filing requirements to assignment of book accounts and trust receipts, as proposed by the Commissioners on Uniform Laws. An article based on this report will probably appear next year in the Yale Law Review. Studies of real estate construction finance and of urban real estate financing as a problem in security are still in the initial stages.

Professor John Hanna's study of legal and financial problems in coöperative marketing.

A digest has been made of all American state statutes relating to coöperative marketing, of all Federal statutes on the same subject, and of all American, English, Canadian, Irish, and Australian court decisions involving coöperative marketing activities in any way. A summary of operating methods and financial arrangements of the different types of coöperative associations has been made with particular individual study of the leading coöperatives as well as a review of the activities of governmental bureaus and of current proposals for new legislation. The material is being assembled in a volume entitled *The Law of Coöperative Marketing*, to be published by the Ronald Press.

Professor Robert A. Harper's studies of organic structure and integration.

Studies on the environmental influence on the processes of cell growth and integration give evidence that in the group of plants concerned light acts directly to decrease protoplasmic movements and the activities involved in the differentiation of organs and tissues, but does not affect the rate of cell growth and multiplication. Further, the effects of moderately high temperatures are to change the erect habit of growth into that of a loose, irregular spiral. Evidence is confirmed that the radial and metameric symmetry of the normal plant is achieved as a result of the relative load carried by the cells at successive stages in the development of the stem and branches.

Publications:

"Morphogenesis in Polysphonthylium," Bulletin of the Torrey Botanical Club, 56: 227–58, July 15, 1929.

Professor Selig Hecht's investigation of the visual process in insects.

A study has been completed of the relation between visual acuity and illumination, part of which has been published in the three papers listed below. A fourth paper is in process of preparation. Special apparatus has been constructed to measure intensity discrimination.

Publications:

- "The Visual Acuity of Insects," The American Journal of Physiology, Vol. 30, 1929.
- "Eine Grundlage für die Beziehung zwischen Sehschärfe und Beleuchtung," Die Naturwissenschaften, Vol. 18, 1930.
- "The Intensity Factor in Vision and Radiation," The American Naturalist, Vol. 64, 1930.

Professor Selig Hecht's investigation of visual acuity and color vision in man.

Experiments are concerned with the interrelations among visual acuity, the color sense, and the illumination, the purpose being to describe as accurately as possible the nature of the physical and chemical reactions which are concerned in the visual process.

Publication:

"The Development of Thomas Young's Theory of Color Vision," Journal of the Optical Society, Vol. 20, May, 1930.

Professor James Jobling's study of leukemia in mice; with Dr. Maurice N. Richter.

Experiments are being carried out to discover the nature of the transmission of leukemia from parent to offspring. Three approaches are being made to the specific problem:

- (1) By means of inoculation technique: (a) Attempts to determine the presence of organisms by bacteriological methods have so far been unsuccessful; (b) the separation of the cellular from the non-cellular part of the inoculum has been obtained by centrifuging the material and also by passing it through filters; (c) the inoculum has been further tested by subjecting it to various manipulations such as desiccation, grinding, and refrigeration.
- (2) Reciprocal crosses with a negative strain. Results so far prove that the nature of hereditary control is not recessive in the Mendelian sense.
- (3) This study tests the possibility of the transmission by way of mother's milk and body contact. So far, none of the fostered mice from the negative strain have shown any symptoms.

Genetic experiments have brought out a clearcut problem on the nature

of hereditary differences in susceptibility. Anatomical and microscopical studies on leukemia are being conducted.

The problem involved in these experiments leads to the underlying question of the nature of leukemia and, if leukemia is to be considered a neoplasm, to the heart of the cancer problem as well as the problem of the mechanism of the control of normal growth.

Publications:

- "Experimental Transmission of Leukemia in Mice," Proceedings of the Society for Experimental Biology and Medicine, 26: 362; 1929.
- "Studies on Leukemia in Mice. 1. The Experimental Transmission of Leukemia." To appear in the *Journal of Experimental Medicine*. Three other papers are in preparation.

Professor Douglas W. Johnson's shoreline studies and peneplane studies.

Investigations of the form of mean sea level have been carried on for several years, resulting in the conclusion that the Atlantic coast has remained stable during the last third of a century instead of subsiding at the rate of two feet per century as stated by earlier students of the problem.

Professor Johnson made a tour of the world during the year in order to test in other parts certain theories regarding shoreline phenomena. His studies of marine terraces in Australia, New Zealand, Japan, and Hawaii provide an explanation of the process of wave attack and will require extensive revision of current theories regarding sea level changes.

The work on ancient erosion surfaces at high levels in the Appalachians and New England has progressed far enough to make it possible to correlate definitely the principal older erosion surface in Pennsylvania with that in New England. In South Africa, New Zealand, and western United States high level erosion surfaces were studied with results that seem to be of much value.

Publications:

- "Studies of Mean Sea Level," Science, Vol. LXX, No. 1809; pp. 220-22, August, 1929.
- "The Central Plateau of France," Geographical Review, Vol. XIX, No. 4; pp. 662-67, October, 1929.
- "The Geographic Prospect," Annals of the Association of American Geographers, Vol. XIX, No. 4; pp. 167–231, December, 1929.
- "Baselevel," Journal of Geology, Vol. XXXVII, No. 8; pp. 775-82, November-December, 1929.
- "Studies of Mean Sea Level," Bulletin of the National Research Council, 70; pp. 1-50, 1929.
- "Appalachian Studies I," Bulletin of the Geological Society of America, Vol. XL; pp. 131-32, 1929. (Abstract.)

- "Appalachian Studies II," with Karl Ver Steeg. Bulletin of the Geological Society of America, Vol. XL; pp. 132-33, 1929. (Abstract.)
- "Observations sur le niveau moyen des mers," Annales de Geographie, Vol. XXXIX, pp. 76-78, January, 1930.

Professor Paul F. Kerr's chemical analyses of clay.

The work of the present year constituted a part of an extended study of clay minerals undertaken in coöperation with the United States Geological Survey and a committee of the National Research Council.

Publications:

- Kerr, P. F., "Kaolinite from a Brooklyn Subway Tunnel," American Mineralogist, April, 1930.
- Ross, C. S. and Kerr, P.F., "Dickite, a Kaolin Mineral," American Mineralogist, January, 1930.
- "The Kaolin Minerals," Journal of the American Ceramic Society, March, 1930.

Professor Victor K. LaMer's studies in chemical kinetics.

The specific problem was to study what influence the presence and position of an electric charge in an organic molecule will have upon the reactivity (rate of chemical reaction) of that molecule. No previous work has ever been done upon this specific problem. The rate of replacement by thiosulfate ion, of the bromine in salts of alpha and beta substituted fatty acids, has been studied in detail. The experimental data accumulated indicate a striking difference between the stability of a substituted halogen in neutral molecules and in charged molecules particularly when at different positions in the molecule. Results of the study are in agreement with the electrostatic theory of kinetic anomalies, and constitute an important confirmation of this theory.

Publications:

- "Activity Coefficients of Electrolytes. IV. The Solubilities of Lanthanum and Thallous Iodates in Aqueous Salt Solutions and the Principle of Specific Interaction," *Journal of the American Chemical Society*, 51, 2632, September, 1929.
- "Chemical Kinetics in Highly Dilute Solution. Bromo-Acetate and Thiosulfate Ions in the Presence of Sodium Ion at 25°," Journal of the American Chemical Society, 51, 3341, November, 1929.
- "Neutral Salt Action. The Relative Influence of Cations and Anions upon the Equilibrium, 2Fe (CN) 6 + 31 \rightleftharpoons 2Fe (CN) 6 + 13. Journal of the American Chemical Society, 52, 876, March, 1930.
- "An Improved Weight Buret," with H. B. Friedman. Analytical edition, Journal of Industrial Engineering Chemistry, 2, 54, January, 1930. A short note.

"Solutions." A review of progress in this field for the period July 1, 1928, to December 31, 1929. Appeared as Chapter I of the Annual Survey of American Chemistry published by the National Research Council (1930).

Professor Donald E. Lancefield's genetic and cytological studies.

The research assistant has been in charge of the experimental stocks and has made cytological preparations for the study of chromosomal differences between the two different physiological species of *Drosophila obscura* found in America. The major project on which she has been employed is the study of maturation phenomena in hybrid individuals. This has involved making the genetic crosses and the cytological examination of individuals obtained.

Professor J. L. R. Morgan's study of electrolytic polarization and conductance.

Preliminary researches have been completed and progress made on the main research on electrolytic polarization and conductance. Two papers on the quinhydrone electrode are in press. The work has been greatly aided by the expert advice of a radio physicist.

Professor S. Butler Murray's purchase of research material in the fine arts.

This was the seventh allotment for the building up of equipment in fine arts.

Professor Emerson H. Swift's photographic work in connection with researches on the Church of St. Sophia.

The summer will be devoted to preparation of the photographic illustrations to be used in the publication of researches on the Church of St. Sophia. The text is nearing completion.

Professor Frederico de Onís's general bibliography of Spanish language, literature, and history.

Over twenty thousand cards have been systematically assembled and classified. When the bibliography was undertaken two years ago it was in the modern field, in connection with the *Revista de Estudios Hispanicos*, but it developed into a general bibliography of language, literature, and history of Spain and Spanish America. Nothing of the sort exists in Spanish and it serves as a valuable instrument to research students in these fields.

Publication:

Bibliography of the Revista de Estudios Hispanicos, issue of April-June, 1929.

Professor V. G. Simkhovitch's Approaches to History.

Two students were employed to assist in research on the interpretations and misinterpretations and applications of the word "evolution." Some of the books found will be used in connection with the second installment of the volume *Approaches to History*, some parts of which will probably be published next year.

Professor Edmund W. Sinnott's investigation of inheritance of shape in cucurbita fruits.

By arrangement with the Carnegie Institution of Washington use of a plot of land two acres in area at Cold Spring Harbor, Long Island, was made available. On this were planted about four thousand squash plants, representing thirty pure lines and a number of pedigrees obtained from crosses. The research assistant resided at Cold Spring Harbor from June to October, 1929, raising the plants, making pollinations, harvesting, and recording the fruits. Since then analyses of the data have been made in the laboratory. The results indicate that fruit shape is controlled by genetic factors which tend to elongate it and others which tend to flatten it.

Publication:

Sinnott, E. W. and Hammond, Dorothy. "Factorial Balance in the Determination of Fruit Shape in Cucurbita," American Naturalist, May, 1930.

Professor Edmund W. Sinnott's study of morphogenetic relations between cell and organ in plant development.

Biometrical analysis of data from several hundred slides of sections through the petioles of Acer (maple) and extensive measurements of all sizes indicate that the plant cell, which has usually been regarded as the ultimate unit in development, may actually not be so.

Publication:

Sinnott, E. W. "The Morphogenetic Relationships between Cell and Organ in the Petiole of Acer," Bulletin of the Torrey Botanical Club, 57: pp. 1-20, 1930.

Professor Arthur F. Taggart's study of the chemistry of flotation process of ore concentration.

The study deals with the phenomenon of adsorption.

Summary of conclusions:

1. It is postulated that, in flotation with soluble reagents, all phenomena governing collection are controlled through simple chemical reactions between the reagents and compounds occurring at the surfaces of the particles affected. Evidence, thought to be conclusive, is offered in support of this hypothesis.

- 2. Considerable detailed experimental evidence of the nature of the chemical reactions between particle surfaces and flotation reagents is given.
- 3. Evidence is presented tending to disprove the classical explanation of Brownian movement.
- 4. An alternative hypothesis of the mechanism of Brownian movement is set forth, and evidence in support thereof adduced.
- 5. Complete correlation between Brownian movement and the Collection phenomena in differential flotation of lead-zinc-iron-silica is shown.
- 6. The use of Brownian movement and the new hypothesis as a powerful tool in the investigation of flotation phenomena is demonstrated.

This line of work is important, not only from the point of view of fundamental physics and chemistry, but also from the insight that it gives into a wide range of technical processes.

Publication:

Taggart, A. F., Taylor, T. C. and Knoll, A. F. "Chemical Reactions in Flotation," The American Institute of Mining and Metallurgical Engineers. Technical Publication No. 312. Class B, Milling and Concentration, No. 28. March, 1930.

Professor Lynn Thorndike's rotographs of Latin manuscripts and incunabula.

Rotographs have been used chiefly in continuing investigations of science, magic, and astrology in the fourteenth and fifteenth centuries. Nothing has been published during the year 1929–1930 but Professor Thorndike's book, Science and Thought in the Fifteenth Century, Columbia University Press, 1929, utilized rotographs purchased from the initial grant from the Special Research Fund.

Respectfully submitted,

HOWARD LEE McBain, Chairman

June 30, 1930

COUNCIL FOR RESEARCH IN THE SOCIAL SCIENCES

REPORT OF THE CHAIRMAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the University Council

GENTLEMEN:

Pursuant to the order adopted by the University Council at its meeting February 17, 1925, I submit herewith for the academic year ending June 30, 1930, the fifth Annual Report of the Council for Research in the Social Sciences.

There were during the year no changes in the membership of the Council, Professor R. C. McCrea continuing to serve in the absence of Professor Haig on leave. The Council, the members of which were named by the University Council, consists of: Deans William Darrach, Howard Lee McBain, William F. Russell, Young B. Smith; Professors Franz Boas, James C. Bonbright, Robert E. Chaddock, John J. Coss, Carlton J. H. Hayes, Frederick C. Mills, Wesley C. Mitchell, Roswell C. McCrea, Albert T. Poffenberger, and Robert S. Woodworth.

Meetings were held on October 23, December 16, 1929, February 24, April 28, and May 5, 1930.

I am happy to record that the research activities carried forward by the Council during its first five years have so commended themselves to the Rockefeller Foundation that a continuation of its life and work has been assured over a further period of ten years.

On April 16, 1930, the Foundation voted to appropriate to Columbia University for the support of the Council for Research in the Social Sciences over such a period the sum of \$500,000, not more than \$50,000 to be available in any one year. In addition the Foundation voted to appropriate \$175,000 toward the support of the Council conditioned as

follows: (1) \$25,000 annually for a five-year period on the basis of \$1 for each \$1 obtained from other sources for the same purpose; (2) for the sixth year \$20,000 on the basis of \$2 for every \$3 so obtained; for the seventh year \$15,000 on the basis of \$3 for every \$7 so obtained; for the eighth year \$10,000 on the basis of \$1 for every \$4 so obtained; and for the ninth year \$5,000 on the basis of \$1 for every \$9 so obtained.

The Council earnestly hopes that it may be able not only completely to match these conditional appropriations but also to better them by securing financial support from sources other than the Rockefeller Foundation.

I again essay the difficult task of giving to the University Council some notion of the nature and progress of the various research activities that have been and are being sponsored, supported, and controlled by the Council for Research in the Social Sciences. I reported last year that by July 1, 1929, five projects (4, 6, 8, 9, 17) had been completed and four (12, 18, 20, 25) had been discontinued or otherwise disposed of. I reported also that twenty-two projects had been under way during that year. Of these, two (2 and 26), under the direction of Professor Boas, were merged into one, making a total of twenty-one. Of these twenty-one, four have been completed and thirteen new projects were authorized during the year.

COMPLETED PROJECTS

16. Research in Roman law, originally under the direction of Professor Herman Oliphant.

Though some work in this field is going forward under Mr. A. Arthur Schiller of the Law School, it is no longer financed by the Council and therefore may be regarded as having been concluded by the publications noted in my last report.

28. Study of German economic conditions, under the direction of Professor James Waterhouse Angell.

This project was completed by the publication last autumn of Professor Angell's Recovery of Germany.

29. The negro in the American labor movement, under the direction of Messrs. S. D. Spero and A. L. Harris.

This project was completed this autumn by the publication of Spero and Harris's The Black Worker: the Negro and the Labor Movement.

30. A Study of agricultural conditions in Europe, under the direction of Professor Rexford G. Tugwell.

Professor Tugwell's study of agricultural conditions in France bore fruit in three articles published in the June, September, and December issues of the *Political Science Quarterly* for 1930. Although Professor Tugwell is anxious to pursue agricultural studies in certain other countries of Europe the Council has not been able to give the financial support that would be necessary for this purpose.

PROJECTS STILL UNDER WAY

1. Research on Latin America, under the direction of Professor Parker T. Moon.

The research work on the study of Mexican finance has been completed. One volume, Mexico and Her Foreign Creditors, by Edgar Turlington, was published this autumn by the Columbia University Press. The manuscript of a second volume, The Legal and Diplomatic Aspects of Investments in Mexico, by Frederick S. Dunn, is now ready for the press. A third volume on The Economic and Political Aspects of Foreign Investments in Mexico, by Herbert Feis, is now being written. No allotment of funds for this investigation during the current year was necessary.

3. Valuation of property by the courts, under the direction of Professor James Bonbright.

Despite the fact that Professor Bonbright was occupied during the year with his membership upon Governor Roosevelt's Commission to Investigate the Public Service Laws of the State of New York, work upon this study has gone forward. In addition to the nine published articles which have been noted in previous reports, five articles were published during the year as follows:

Bonbright, James C. "The Breakdown of 'Present Value' as a Basis of Rate Control," XIV Proceedings of the Academy of Political Science, pp. 75-80 (May, 1930).

"Depreciation and Its Relation to Public Utilities," II Accounting Review, pp. 117–19 (June, 1930).

Bonbright, James C. and Katz, David, "Valuation of Property to Measure Fire Insurance Losses," XXIX *Columbia Law Review*, pp. 857–900 (November, 1929).

Weiner, Joseph L. "The Amount Available for Dividends Where No-Par Shares have been Issued," XXIX *Columbia Law Review*, pp. 906-19 (November, 1929). Weiner, Joseph L. and Bonbright, James C. "Anglo-American Dividend Law: Surplus and Profit," XXX *Columbia Law Review*, pp. 330-59 (March, 1930).

Although not formally a publication of this research project, Professor Bonbright's report on the valuation of public utilities which constituted Parts II and III of the Minority Report of the New York State Commission on the Revaluation of the Public Service Commissions Law, was in fact an expression of points of view that were developed as a result of this research. Beside the numerous articles which have emerged from this study one volume, *Stock Watering*, by David L. Dodd, was published this autumn by the Columbia University Press. The final report of the study will constitute a volume of from twelve hundred to fifteen hundred pages.

5. Pre-census population in the United States, under the direction of Professor Evarts B. Greene.

The statistical material for this study is now as complete as it is possible to make it and is being prepared for early publication. No further appropriation for this piece of research is necessary.

- 7. Family resemblances in intelligence, under the direction of Professor Harold E. Jones.
- This study has resulted in the publication of the following articles: Conrad, H. and Jones, H. E. "Psychological Studies of Motion Pictures: Fidelity of Report as a Measure of Adult Intelligence," University of California Publications of Psychology, 1929, 3, 245-76.
- "Psychological Studies of Motion Pictures: the Technique of Mental Test Survey Among Adults," University of California Publications of Psychology, 1929, 3, 277-85.
- Jones, H. E. "A First Study of Parent-Child Resemblance in Intelligence," 27th Yearbook, National Society for the Study of Education, 1928, Part 1, 61-72.
- "Attendance at Moving Pictures as Related to Intelligence and Scholarship," *Parent-Teachers*, March, 1928.
- "Homogamy in Intellectual Ability," American Journal of Sociology, 1929, 35, 369-82.
- Jones, H. E., Conrad, H., and Horn, A. "Psychological Studies of Motion Pictures. II. Observation and Recall as a Function of Age," University of California Publications of Psychology, 1928, 3, 225-43.
- Jones, H. E. and Hisao, H. H. "A Preliminary Study of Intelligence as a Function of Birth Order," Journal of Genetic Psychology, 1928, 35, 428-433.
- One additional article, "Juvenile and Adult Sex Differences in Immediate and Delayed Reaction," by Professor Jones, remains to be published.

The question of publishing a volume in which the entire study will be brought together has not as yet been settled.

9. Social research in France, under the direction of Professor Carlton J. H. Hayes.

The publication of three volumes of the seven which comprise this study was noted in my last report. During the year a fourth volume, France—a Nation of Patriots, by Professor Hayes, was published. The French Labor Movement, by David J. Saposs, and The Functioning of the French Government, by Professor Lindsay Rogers, are in the hands of the printer. The final volume, French Foreign Policy, by Professor Parker T. Moon, is not yet completed. This project has received no financial support since 1928–1929.

10. Industrialization of the Far East, under the direction of Professor John E. Orchard.

The first volume of this study, entitled Japan's Economic Position: the Progress of Industrialization, was published this autumn by the McGraw-Hill Book Company. Two articles, one on Japan's Penetration into China, and the other on China's Use of the Boycott as a Political Weapon, will appear in an early number of the Annals of the Academy of Political and Social Science. Work is going forward on the volume dealing with the Industrialization of India. It is hoped that this will be completed during the current year. The Council is continuing financial support for this project.

13. Negro migration, under the direction of Professor Frank A. Ross.

The first volume in this coöperative study, The Negro Peasant Turns Cityward, by Louise Venable Kennedy, was published by the Columbia University Press in June, 1930. A second volume, The Negro in Modern Industrial Society, by Dean Dutcher, is about to be issued by the Science Press. A third volume, The Agricultural Economic Aspects of Negro Migration, by Edward E. Lewis, is practically in final form. Saint Helena Island: Her Migration and Her Migrants, by Clyde V. Kiser, is nearing completion. One or two articles have also been prepared for periodical publication. Work on the synthetic volume is well under way but cannot be completed until after the results of the 1930 census are available.

14. The New York money market, under the direction of Professor B. Haggott Beckhart.

As previously reported the first volume of this study, *The Origins and Development of the Money Market to 1863*, has long been completed but publication has been deferred pending the completion of the entire study.

This volume contains about 150,000 words. The original plan of publishing two volumes in addition to this has been altered. Instead a single volume, containing approximately 250,000 words and entitled *Contemporary Problems and Organization of the Money Market*, will be issued. This volume which is now nearing completion will be the joint work of Professor Beckhart, Professor James G. Smith of Princeton, and Professor William Adams Brown, Jr., of Brown University.

15. Study of the legislative problem and function of the International Labor Office, under the direction of Professor Samuel McCune Lindsay.

The publication of Professor Lindsay's volume, International Relations in Labor and Industry, which he had hoped to complete during the year, was delayed by reason of his physical indisposition and his absence in the Orient during the Spring Session. As a by-product of this study one article, "Unemployment—a Major International Labor Problem," was published in the October issue of L'Ésprit International. No allotment has been made for this study since the academic year 1928–1929.

19. Researches in American anthropology, under the direction of Professor Franz Boas.

Miss Deloria has continued collecting materials from the Dakota tribe and in connection with her work has made a complete revision of the Riggs Dakota Dictionary in respect of both phonetics and definition. Mr. W. Jochelson has continued his work on the Aleutian texts. A large amount of this material is now in Professor Boas's hands giving entirely new information on the mythology and the folklore of this tribe. Professor Boas himself has continued his work in coöperation with Mr. George Hunt. The results of this study will shortly appear as Volume X in the series of "Contributions to Anthropology of Columbia University" under the title The Religion of the Kwakiutl.

21. The administration of criminal justice in England, under the direction of Mr. Pendleton Howard.

The manuscript of this volume is entirely completed and awaits publication. The periodical articles which were a by-product of the study were noted in my last report. No allotment of funds has been made for this study since 1927–1928.

22. Study of the administration of labor laws in the United States, under the direction of Professor John B. Andrews.

There has been consistent progress along the lines recommended by the Council's supervising committee, which has met from time to time to discuss research plans as well as the findings of the qualified investigators.

The study of Administrative Regulations Having the Force of Labor Law is three-fourths completed in first draft in a preliminary report of approximately one hundred and thirty typewritten pages. The introductory-summary chapter is still to be written. This is the first comprehensive study of this subject and the report should be useful for many years to come. The intensive comparative study of the administration of the pioneer modern type of laws for One Day of Rest in Seven in operation for some years in Massachusetts, New York, and Wisconsin, is completed, except for some final editing, in a typewritten report of forty pages.

The comparative study of Methods of Industrial Inspection, upon which the subcommittee of the supervising committee placed principal stress at the time the project was recommended for support, has advanced steadily toward completion. After a preliminary survey, six states were selected for intensive study. As a result of field work extending over a period of more than two years the first drafts of reports are now in typewritten form: New Jersey (82 pages); Massachusetts (76 pages); Illinois (92 pages); New York (141 pages); Rhode Island (34 pages); and Wisconsin (178 pages). In prosecuting this part of the study it has been necessary to arrange frequent conferences with experienced state officials now charged with the responsibilities of administration, as well as with the Council's supervising committee. The field workers have concentrated on one state after another for months at a time and each state report in first draft form has been subjected to conference tests, with all of the present staff of investigators (Alfred W. Briggs, George H. Trafton, Ethel H. Van Buskirk, and Helen G. Sternau) participating in the discussion. The present plan is to write a general introductory-summary with a comparative topical discussion of the findings, and then follow with the individual state reports in compressed forms.

While the above studies have been under way, considerable progress has been made in preparing background material for the historical and descriptive portion of the report. In addition a number of brief reports and papers have been prepared on important topics to be included, and several of these have been published as articles in the American Labor Legislation Review. These include, during the past year:

Andrews, John B. "Major Issues in Labor Law Administration."

Commons, John R. "Representative Advisory Committees in Labor Law Administration."

Deblois, Lewis. "Necessity for Safety Standardization."

Johnson, Elizabeth S. "Expenditures in Labor Law Administration." Parkinson, Thomas I. "Functions of Administration in Labor Legislation."

In rounding out the study a number of important topics must still be developed through further research in the field. It is especially important, in presenting the appropriate setting for the special studies already enu-

merated, that the report include adequate treatment, for example, of The Organization of State Labor Departments; The Statistical and Factual Data Required for Adequate Administration; and The Means of Coöperation with Other Agencies in Educating for Law Observance. This part of the inquiry in connection with the substantial reports briefly outlined above, will fully occupy the remainder of the third year of the present project, which must be completed by July 1, 1931.

23. Legal and economic study of the recent development of business corporations, under the direction of Professor A. A. Berle, Jr.

As was predicted in my last report the main study which is the product of this research was completed during the year and is to be published at an early date under the title Corporations and the Public Investor. As a by-product of this study a volume on Cases and Materials in the Law of Corporation Finance, for the use of students in law schools, will shortly be published by West and Company.

26. Racial and social differences in mental ability, under the direction of Professor Franz Boas.

Professor Boas has continued his studies on the influence of environment and heredity upon the growth and development of the individual. One of the new aspects of this problem which he is investigating is how far great rapidity of development in childhood is correlated with the entire cycle of life. In the study of this aspect Dr. Dublin of the Metropolitan Life Insurance Company is also participating. A second study in charge of Dr. Otto Klineberg has been concerned with how far the mental reactions of different groups of populations are determined by heredity and by environment.

27. The use of the injunction in labor disputes, under the direction of Professor Paul F. Brissenden.

As a result of this research one article, in two installments, "The Use of the Labor Injunction in the New York Needle Trades," by Paul F. Brissenden and C. C. Swazie, has been published in the *Political Science Quarterly*, December, 1929, and March, 1930. Two other articles were completed but have not yet been published: one, "Contempt of Court in Labor Injunction Cases," by Mr. Swazie, and another, "Analyses of the Cafeteria Strike Cases of 1929," by Professor Brissenden. The field work in this study has continued owing to the fact that a large amount of new materials was unexpectedly discovered and to the additional fact that the years 1929 and 1930 were marked by an almost unprecedented volume of injunction litigation. Work on this study is continuing although no further allotment of funds for the year 1930–1931 was made.

31. Effects of technical changes in the printing industry upon the employment of workers, under the direction of Professor Elizabeth Faulkner Baker.

Data concerning the sales of modern printing machines have been secured and machine installation and employment data for the five years, 1924–1929, have been gathered and verified in fifty-three printing plants in New York City and four large plants outside of the city. All available employment and membership data from the unions concerned have been collected and personal interviews with displaced workers have been held. About one half of the collation and analysis of material has been completed. Two articles have been published: "Economic and Social Consequences of Mechanization in Agriculture and Industry" in the American Economic Review Supplement, March, 1930; "Unemployment and Technical Progress in Commercial Printing" in the American Economic Review, September, 1930. The entire project to be published in book form will be completed within the current year. No further allotment of funds has been made for this study.

NEW PROJECTS

32. Compensation for automobile accidents, under the direction of a committee of which Mr. Arthur A. Ballantine is Chairman and Professor Joseph P. Chamberlain an active member.

The field work and legal investigations of this study were nearly completed during the year. The final report is expected to be ready by the first of July, 1931. The intervening period will be devoted to the preparation of tables, the completion of the reports on case and legal studies, and consultation in the Committee on the advisability and practicability of extending the principle of workmen's compensation to automobile accidents.

The legal studies have dealt with the adjustment of the law of torts by court and legislature to the great increase in danger on the highways caused by the automobile, and to the constitutionality of a compensation act. Statutes and cases in the federal jurisdictions and in the forty-eight states have been carefully examined to discover the reaction of public opinion through legislatures and courts to the great increase in road accidents caused by automobiles. Studies of the development of European law indicate remarkable similarity to that in this country.

The case studies are completed except that the Committee hopes to make a further study in Massachusetts to bring out the results of the compulsory insurance law of that state. As the problem is chiefly a city problem, the work has been centered in groups of large, medium-sized, and small cities spread geographically over the country. Two studies of rural counties, however, have been made. These studies are directed

to the social consequences of accidents including in each case, whether damages were paid, the amount and promptness of payment, the loss, the expense of medical treatment, and the result on the economic standing of the family. The field work on the court records has been completed. This was undertaken to show the degree of congestion in court calendars and consequent delays caused individual defendants. In this aspect of the research the Committee was greatly aided by the advice of Dean Clark of Yale Law School who has had wide experience in the study of court records. The study of insurance problems under Professor Blanchard has been directed to the results of the present system, and the probable results and cost of a compensation system. In this phase of the work state insurance commissioners and representatives of casualty companies have coöperated.

As a by-product of the study three articles have appeared in law periodicals and two others will be printed in the near future. Those which have appeared are:

Ballantine, Arthur. "Study of Compensation for Automobile Accidents," American Bar Association Journal, Vol. LXV, p. 97.

Heyting, W. J. "Automobiles and Compulsory Liability Insurance," *Ibid.*, Vol. XVI, p. 362.

"Automobiles and Vicarious Liability," Ibid., Vol. XVI, p. 225.

Those which are accepted for early publication are:

Deák, F. "Automobile Accidents: Comparative Study of the Law of Liability in Europe," University of Pennsylvania Law Review.

Heyting, W. J. "The Statutory Liability of Automobile Insurance Companies," American Bar Association Journal.

33. Political predictions, under the direction of Professor Robert E. Chaddock.

A study is being made of the *Literary Digest* and other straw poll figures in an effort to determine the causes of error in predictions based thereon and to develop techniques for correcting raw figures in order to secure more reliable forecasts.

34. Factors determining public opinion, under the direction of Professor Gardner Murphy.

A survey of opinions has been taken of two thousand undergraduate male students in seven institutions of higher learning. The purposes of this survey were to study the interrelation or clustering of certain opinions and to determine what items of the personal background or experience are definitely associated with particular opinions. Work is going forward on the data thus collected. In addition to this a more extensive laboratory study of the opinions and attitudes was made of fifty students in Columbia College who volunteered for this purpose.

At a meeting held on May 5, 1930, the Council approved the following new projects:

- 35. Study of acculturation, under the direction of Dr. Ruth Benedict.
- 36. Study of the teaching of the social sciences in Europe, under the direction of Professor Horace Taylor.
- 37. Research in Indian languages, under the direction of Professor Franz Boas.
- 38. Statistics of studies of growth, under the direction of Professor Franz Boas.
- 39. Location and measurement of certain fundamental human traits, under the direction of Professor Henry E. Garrett.
- 40. Research in anthropometric and ethnological investigations in North America, under the direction of Professor Franz Boas.
- 41. Administration of governmentally owned enterprises, under the direction of Professor Arthur Macmahon.
- 42. Study of motivation of the monkey, under the direction of Professor Carl J. Warden.
- 43. A decade of economic and social change, under the direction of Dr. Arthur R. Burns.
- 44. Study of the Greek constitution, under the direction of Professor Lindsay Rogers.
- 45. Investigation of the survival of African influence, under the direction of Professor Franz Boas.

Respectfully submitted,

HOWARD LEE McBAIN,

Chairman

June 30, 1930

COUNCIL ON RESEARCH IN THE HUMANITIES, 1929–1930

REPORT OF THE CHAIRMAN FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the University Council

GENTLEMEN:

On behalf of the Council on Research in the Humanities, I beg to submit a report of its operations for 1929–1930, including a description of the several research projects supported by the Council and a general statement of its receipts and expenditures.

The Council now consists of the following members, chosen by the University Council, and holding office at its pleasure. One vacancy remains to be filled: W. B. Dinsmoor, A. P. Evans, R. H. Fife, *Chairman*, J. L. Gerig, L. H. Gray, R. J. H. Gottheil, G. P. Krapp, S. B. Murray, N. G. McCrea, *Secretary*, W. W. Rockwell, H. W. Schneider, P. M. Hayden, *Treasurer*.

During the year covered by this report the Council held nine meetings, as follows: October 11; November 1, 22, 27; January 24; February 14; March 28; April 25; May 16. While some part of these sessions was given up to the development of a routine administration which had not been fully tried out in the first year of the Council's existence, the greater portion was devoted to the examination and discussion of projects for research already under way or proposed for the consideration of the Council.

Of the twenty-six research undertakings accepted by the Council in the preceding year, one has been withdrawn, three have been completed and the results are in press or awaiting publication, and seven in all probability will be finished during the present academic year. The balance will require two or more years for their conclusion. In several cases, such as

the assembly and study of American speech records, or the preparation for publication of Greek papyri from Egypt, the scope of the task is such as to require a number of years. In this and other cases, where researches tend to be drawn out, it is expected that publication of the available results will take place during the progress of the inquiry. Wherever possible in such cases, the Council has adopted the policy of increasing the number of coöperating persons so as to expedite the work.

For the coming year, fourteen new projects have been approved, making a total of thirty-eight undertakings which are now receiving support and advice. Of these, more than half are in the fields of language, literature or literary history; six are in the field of history, including the history of science; six in art and archaeology, and four in philosophy and the history of religion.

It must be repeated here, for it can never be overlooked, that research in the humanities is largely an affair of individual undertaking, and is far more a one-man task than in fields where methods of quantitative and statistical approach are in place. It is, therefore, not surprising that again this year most of the projects supported by the Council are for the completion of researches initiated some years before by individual scholars, and arrested or delayed for lack of time or funds. For this reason, some of the allotments have been small, though their size bears little relationship to the importance of the work to be carried out. As heretofore, appropriations have been made for research and clerical assistance, photographs and other reproductions, traveling expenses, and leaves of absence. The indications are that an increasing number of projects for research will be of a collaborative character, enlisting several members of a department, or groups from related fields, and the collaboration of seminars. As instances of this gratifying tendency, I may mention the preparation of a definitive edition of the Old French epic poems of the Lorraine cycle, a task which has been undertaken by a philological group in Old French including persons from outside this University; and a proposed study of religion

and culture in Mexico, under the direction of a committee representing religious history, philosophy and comparative religion, Spanish civilization, social history, and anthropology.

PROJECTS FOR RESEARCH

I. Compilation of a library of American speech records, under direction of Professor William C. Greet and Professor Harry M. Ayres.

The gathering of records of American dialects has been in progress for two years at Columbia University and the speech of two hundred persons has now been recorded on permanent discs of aluminum by an electrically operated instrument in a laboratory equipped for this purpose. The wide distribution of the student body, particularly in the Summer Session, has provided characteristic representatives from many parts of the Union. In the past year one hundred and sixty-eight speech records and eleven records of negro spirituals were made at Williamsburg, Virginia, with the coöperation of the Williamsburg Holding Company. These are representative of an area of Colonial English. Study of the records for linguistic peculiarities is in progress.

Publication:

American Speech, June, 1930, and in further issues of this periodical during the coming year.

2a. The chronology of the archons of Athens, by Professor William B. Dinsmoor.

By means of an inscription of April 30, 292 B.C., found on the Acropolis in 1927 and by the use of astronomical and other data a revised chronology has been worked out for the archons of Athens in the third and second centuries B.C. This resulted in the fixation of one hundred and thirty-eight archons certainly and eleven conjecturally, with consequent deductions of importance for the history of Athens, Delphi, Delos, and Ptolemaic Egypt.

Publication:

The Archons of Athens, 300 pp., published by the American School at Athens. (In press.)

2b. The architecture of the temple at Bassae, by Professor William B. Dinsmoor.

The material for the study was collected in Greece in 1927, except that regarding the sculptured frieze. During the past year, studies of this were made in London. The manuscript is nearly finished and the work will be ready for print this year.

Publication:

One volume, by the American School at Athens, date not determined.

2c. Completion of a work on the Propylaea and entrance to the Acropolis, by Professor William B. Dinsmoor.

The researches are finished. Preparation of the work is in progress. Publication:

One volume, date not determined.

2d. Publication of the missing sixth book of Serlo's architecture (1547), by Professor William B. Dinsmoor.

The manuscript, never published, is in the Columbia University Library. Transcription and the preparation of an introduction and a commentary is in progress.

Publication:

One volume, date not determined.

3. A critical study of the life and works of Martin Luther, by Professor Robert Herndon Fife.

A study of the sources and the collection of material has been under way in Germany and America for several years. Preparation of the manuscript is now in progress and it is expected that the work will be completed, down to 1521, in the present year.

Publication:

Probably two volumes, date not determined.

4. A study of the social and religious aspects of the Revolutionary generation in America, by Professor Evarts B. Greene.

Researches have been in progress for many years in preparation for a work on American society, 1760–1790, and a work on the relations between religion and society in America in the Revolutionary era. During the past year the following material has been gathered: (a) a bibliography of the Loyalists; (b) a survey of business during the Revolution; (c) a survey of the economic and social status of Whig leaders in the Revolutionary period.

Publications:

- "William Johnson and the American Revolution," Columbia University Quarterly, I, 1930, 2.
- "William Johnson," Dictionary of American Biography.
- "Persistent Problems of Church and State," American Historical Review, January, 1931.
- 5. Public discussion of civil and religious liberty in England, 1640–1660, by Professor William Haller.

Researches have been carried on during the past year in the Thomson and other pamphlet collections in the British Museum.

Publications:

Two volumes of selected tracts illustrating the controversial literature in England 1637–1650, with critical introductions, in "Records of Civilization" series (Columbia University Press) in 1931.

A critical study of the literature of revolt during the English civil wars; in preparation, date of publication probably 1932.

6. The continuation of Olcott's *Dictionary of Latin Inscriptions*, under direction of Professor Clinton W. Keyes.

Before the death of Professor Olcott (1911), seventeen fascicles (down to ARA) had been published and notes prepared through D. During the past year inscriptions which have appeared since 1911 have been prepared for the letters A to E and correspondence has been carried on with scholars throughout the world with a view to recommencing publication. It is proposed to push the work forward as rapidly as funds permit.

Publication:

Preparation of copy for the first fascicle is now in progress.

7. Cicero as a philosopher, by Professor Nelson G. McCrea.

A critical revaluation of Cicero's philosophical ideas, with particular reference to the doctrines of the New Academy and his interest in Stoicism. The work of the year has also been extended to cover the interest in Cicero of the Christian Fathers and his influence in the Renaissance and in modern times. The study is being pushed through to completion by Professor McCrea during a leave of absence in the present semester.

Publication:

It is hoped to have the manuscript ready in the spring of 1931 for appearance in the series, "Our Debt to Greece and Rome," Johns Hopkins Press.

8. An edition of the *Summulae physicorum* of William of Occam, by Professor Richard McKeon.

In 1929 Professor McKeon located in German libraries three early editions and four manuscripts which had been unknown to previous investigators. He is preparing a critical edition of the text, with introduction, translation, and notes.

Publication:

Date not determined.

9a. A history of American poetry, under direction of Professor Ralph L. Rusk.

During the past year the collection of material from the Colonial period has been in progress in New York and Boston libraries and will be continued

this year in Washington and Philadelphia. A search has been made through newspapers and other periodicals for verse and biographical data. The photostats have been studied in the seminar on American Colonial literature, with their biographical, political, social, and religious background.

Publication:

A volume on the history of American poetry in the Colonial period is in preparation. It will probably be ready in 1933.

9b. The unpublished letters of Ralph Waldo Emerson, under direction of Professor Ralph L. Rusk.

Up to the present seven hundred and fifty letters have been collected, of which five hundred were found during the past year, mainly in the libraries of Boston, Cambridge, and Concord, Columbia University, the Huntington Library, and in private possession. Negotiations are now in progress with the Emerson heirs, from whom it is hoped to secure several hundred letters in possession of the family.

Publication:

The series under preparation will include at least three volumes. Date of issue not determined.

10. A critical study of the life and works of Arthur Schnitzler, by Dr. Otto P. Schinnerer.

The sources for this work have been collected in the libraries of Vienna and Munich. Dr. Schnitzler permitted full use of his unpublished manuscripts and early drafts of his works, as well as of his personal files and memoranda.

Publications:

"The Literary Apprenticeship of Arthur Schnitzler," Germanic Review, V (1930), 58ff.

"Arthur Schnitzler and the Military Censorship," Ibid., V (1930), 238ff.

"Schnitzler's Reigen," Publications of the Modern Language Association of America. (To appear.) A volume on the life and works of Schnitzler is in preparation.

11. Studies of American religious sects, under the direction of Professor Herbert W. Schneider.

Sources have been collected during the past year at the Library of Congress and in private libraries on the Brotherhood of the New Life, a Spiritualist sect. Material has also been gathered in London on the English branch. The work on this group will be completed during the year 1931–1932 and studies will begin on another sect.

Publication:

A volume on the Brotherhood of the New Life is in preparation.

12. Studies in the history of magic and experimental science in the Middle Ages, by Professor Lynn Thorndike.

The collection of sources has been going on for several years and thirtysix chapters and appendices, extending over the fourteenth and fifteenth centuries, are now ready. Researches are being continued in alchemical texts and manuscripts of the fourteenth century and in a group of related topics of the fifteenth.

Publications:

Two volumes are in preparation. Collateral studies published: "Vatican Latin Manuscripts in the History of Science and Medicine," *Isis*, XXII, September, 1929.

A chapter on "Magic, Astrology, and Alchemy," Cambridge Medieval History. (To appear.)

"The Historical Background of Philanthropy," Intelligent Philanthropy, University of Chicago, 1930.

Various discoveries in manuscripts in the history of science and medicine, to appear in Speculum, Isis, and the Archiv für Geschichte der Medizin.

"Francis of Florence, an Inquisitor of the Fifteenth Century," in a volume in honor of Father Madonnet. (To appear.)

"The Proposed Corpus of Medical Scientific Literature," Isis. (In press.)

13. A study of the poetry and music of the Pima Indians, under direction of Professor Franz Boas.

Material has been collected in Arizona regarding the epic style of the tribe as shown in the "speeches," a form of recitatory poetry, as well as in the songs of these aborigines. The studies included the making of the first grammar and dictionary of the Pima language.

Publication:

Manuscript (notebooks and other field records) and phonograph records will be prepared for publication in 1930–1931. Work has been delayed by absence of the research assistant on a tour of duty in Africa.

14. A critical edition of the letters of Pierre Bayle, under direction of Professor John L. Gerig.

The text, with notes, is under preparation. It will include the reproduction, from photostats, of originals in French libraries of at least four hundred and fifty letters already published or partly published, but not previously edited, and two hundred hitherto unpublished letters now in manuscript in the Columbia University Library.

Publication:

Two volumes, in preparation.

15. A library of Anglo-Saxon poetry, under direction of Professor George P. Krapp.

A critical edition of the entire body of Anglo-Saxon poetry is under preparation from photostats of the original manuscripts. The first volume, containing the poems of the Junius manuscript, has been made ready, together with an introduction, notes, and a critical apparatus. The second, the Vercelli manuscript, is nearly finished. The third is to contain the Exeter manuscript, and delay is being experienced in getting permission to photograph this text, which has never been reproduced. The three remaining volumes will give the text of the Beowulf manuscript, the Psalms, and the Metres of Boethius, and many minor poems from scattering sources.

Publication:

The Junius Manuscript, "Anglo-Saxon Poetic Records," Vol. I, Columbia University Press (in press); Vol. II to appear in 1931; the remaining four volumes probably within three years.

16. Withdrawn.

17. Completion of a study of the life and works of Cervantes, by Professor Federico de Onís.

A critical biographical and literary investigation of the poet has now been completed in English.

Publication:

One volume, manuscript now ready, is to appear in 1931 in a series covering the history of Spanish literature.

18. Studies in the gaucho literature of Argentina, with an edition of the epic Martin Fierro, by Professor Federico de Onís.

A survey of *gaucho* poetry, with the preparation for publication of its great epic and an investigation of the *gaucho* vocabulary.

Publication:

One volume in the series "Clasicos castelaños," Madrid, in preparation.

19. Completion of studies in contemporary lyrical poetry in Spain and Spanish America, under direction of Professor Federico de Onís.

The collection is in progress of poems and biographical and bibliographical material from periodicals in Spanish and other libraries.

Publication:

One volume in the series of the Revista filologica española, in preparation.

20. A study of the development of literary criticism in Italy since the Unification, by Professor Peter M. Riccio.

The past academic year was spent in Italy collecting materials from libraries and archives and in conference with Italian writers and critics. The collections are now being classified and the preparation of the manuscript is in progress.

Publication:

One volume, in preparation.

21. Study and preparation for publication of Greek papyri from Egypt, under direction of Professor William L. Westermann.

The subject of study comprises four hundred to five hundred pieces in possession of the Columbia University Library. Last year was devoted to materials regarding taxation from the record office of the town of Theadelphia in the Fayum, Egypt, in the second century A.D. The manuscript is now being typed and made ready for the press.

Publication:

(Completed with help from the Council) On Slavery in Ptolemaic Egypt, Columbia University Press, 1929.

One volume, Theadelphia Rolls, in preparation.

22. Completion of a work on Pericles and his architects, by Professor William B. Dinsmoor.

The work has been prepared in preliminary form, tracing the careers of the Athenian architects of the fifth century B.C., including the anonymous workers, and discussing the development of design and construction in this period. It is now being revised and enlarged.

Publication:

One volume, in preparation.

23. A bibliography of translations into English from medieval sources, under direction of Professor Austin P. Evans and Dr. William W. Rockwell.

The titles to be gathered cover the fourth to the fifteenth centuries. The work is to be exhaustive in character and includes a comparison of the translations and an estimate of their merit. About one-half of the work has been done.

Publication:

Two volumes, in preparation.

24. The preparation of an introduction to Semitic comparative phonology, by Professor Louis H. Gray.

A new theory of phonological development in Hebrew was developed, in conference with European scholars, and has been worked out.

Publication:

Introduction to Semitic Comparative Linguistics, "Monograph Series of the Linguistic Society of America." (To appear.)

25. Bibliography of French theatrical parodies, under direction of Professor Gustave L. van Roosbroeck.

The reproduction of title-pages (including text selections) and the gathering of titles in French libraries has been completed and the material is being studied in preparation for publication.

Publication:

One volume, Institut des Études françaises, in preparation.

26. Studies in the decorative art of southwestern Indian tribes, under direction of Professor Franz Boas.

Last year was spent by the field worker in various American museums studying the style and technique of basketry from the Pueblo and nomadic tribes. The work is being continued this year among the Apaches. The object of these researches is to determine the formal aspects of the decorations and the relation of shapes, techniques, and collateral functions to the growth of art styles. A continuance of the work through the coming year has been assured through a fellowship.

Publication:

Date not yet determined.

27. The preparation of a history of contemporary German literature, by Professor Hugh W. Puckett.

Materials are now being gathered in German libraries for a systematic presentation of the literature of the last three decades. It is expected that the collection of biographical and bibliographical data will be finished in the summer of 1931 and the work completed in the following year.

Publication:

One volume, probably in 1932.

28. Preparation for publication of an unpublished autobiographical manuscript in the Morgan Library, by Professor Frederic G. Hoffherr.

Owing to considerations of policy the Council can make no public statement regarding this work at present, except that it is of historical importance. Photostats of the manuscript have been made and a part of the text has been prepared. Researches are in progress to identify persons and places and to check statements of fact.

Publication:

Two volumes, to appear in 1932 or 1933.

29. A definitive edition of the poems forming the Old French Lorraine cycle, under direction of Professor Henri F. Muller.

Photographs have been obtained from European libraries of fifteen of the manuscripts of this epic cycle, which has not previously been published, and others are being sought. A text and critical material is in preparation with the help of the members of the Old French seminar and the coöperation of a French and a German scholar.

Publication:

Scope and date undetermined.

30. A translation of Descartes' *Principia philosophiae*, under direction of Professor Frederick Barry.

The translation is nearly complete and the introduction and commentary are to be worked out in the present year.

Publication:

One volume in "Records of Civilization" series, Columbia University Press.

31. Reproductions of miniatures and ornaments in early medieval manuscripts in southern France, by Meyer Schapiro.

Study of the manuscripts in French libraries is now in progress, with the help of a fellowship. The reproductions will be completed during the coming year.

Publication:

Not yet determined.

32. Preparation of a Sanskrit etymological dictionary, by Professor Louis H. Gray.

Considerable preliminary researches have already been made and the further assembly of material is now in progress.

Publication:

Not yet determined, possibly by fascicles as the work progresses.

33. The preparation of a selective and annotated bibliography of Italian literature and literary criticism 1902–1931, under direction of Professor Giuseppe P. Prezzolini.

The gathering of titles has begun and will be carried on through the present year in this country and in Italy. Simultaneously the critical material will be prepared. The plans have been discussed with experts in Italian literature in Florence, Munich, and Paris and their criticisms invited and considered. It is expected that the work will be completed in three years.

Publication:

One volume will be ready at the end of the present year, with two volumes to follow in 1932 and 1933.

34. A study of the life and works of Gerhart Hauptmann, by Professor Frederick W. J. Heuser.

Considerable material had already been collected and this was supplemented during the past summer by studies in libraries at Berlin, Munich, and Leipzig as well as in private collections. The poet opened his private library and files, permitting the use of letters, diaries, and unpublished manuscripts. Interviews were held with Hauptmann himself and relatives and friends of the author in the search for biographical and critical data. It will be possible to finish the collection of material at the end of another year.

Publication:

One volume, to be published in 1932 on the occasion of the poet's seventieth birthday.

35. The preparation of a descriptive catalogue of the Semitic manuscripts in the Columbia University Library and in the library of Union Theological Seminary, under the direction of Professor Richard J. H. Gottheil.

The material includes four hundred and twenty-seven manuscripts in Hebrew, Arabic, Samaritan, Syriac, Ethiopic, and other languages and thirty-one Syriac and Ethiopic manuscripts in Union Theological Seminary. They are mainly religious or liturgical in character, but also contain philosophical, poetic, philological, and scientific works. The collection includes much rare material, some from the authors' hand and some unique. About twenty-five manuscripts have now been catalogued and the work will be completed this year.

Publication:

Date not yet determined.

36. The translation into English of selections from the *Opera mathematica* of François Viète, under the direction of Professor Frederick Barry.

This involves a preliminary study of the mathematical work of Viète, which has not previously been translated into English. It will be completed in the present year.

Publication:

One volume in the "Records of Civilization" series.

37. A study of August von Kotzebue's influence on the Czech drama, by Dr. Arthur P. Coleman.

Kotzebue was the most popular dramatist throughout eastern Europe in the early decades of the nineteenth century. Studies have been made during recent months of dramatic works and theatrical records in the libraries and archives at Warsaw and Prague. The gathering of material is still in progress.

Publication:

Date not determined.

38. The completion of a work on the art style of Melanesia by Professor Gladys A. Reichard.

Preliminary studies were made under a Guggenheim Fellowship in Hamburg. During the past summer photographs and drawings were collected from a number of European museums, and are now being studied for incorporation into the work. To be ready for publication by January 1, 1931.

Publication:

One volume, date not fixed.

39. A study of the history of religion and culture in Mexico, under the direction of a Committee composed of Professor H. W. Schneider, *Chairman*, Dr. Ruth Benedict, *Secretary*, Professors Franz Boas, John J. Coss, Federico de Onís, and William R. Shepherd.

The general plan proposes an investigation of the origins of the native religion and culture in Mexico by a study of aboriginal cults and of sixteenth-century Spanish records. The project looks to the coöperation of a number of persons and agencies. At the suggestion of the Council, a preliminary survey has been made by conferences and correspondence with fifteen scholars and experts in this country, Mexico, and Spain. The plans outlined include biographical work in this country, historical studies of sixteenth-century records in Spain, and field work in Mexico, Central America, and Spain. A correlation of the work now being done in this field by other agencies is also under study. For carrying out these plans, considerable funds will have to be sought other than those now at the disposal of the Council.

40. Preparation for publication of unpublished manuscripts of the *Spiritual Philosophy* of Samuel Taylor Coleridge, by W. E. Gibbs.

Material which has been loaned to the British Museum by Rev. Gerald Coleridge includes a manuscript of nine hundred pages, containing Coleridge's religious philosophy, and a notebook of one hundred and seventy-eight pages with an account of his reading in preparation for the work. The manuscripts are now being transcribed and typed. When this is completed, the pertinent biographical and critical material will be worked out.

Publication:

Date not yet determined.

41. The collection and publication of Southern folk songs, under the direction of Professor Dorothy Scarborough.

One volume of songs had been published previously. During recent months collections have been going forward in the mountain sections of Virginia and North Carolina, and several hundred songs have been brought together on dictaphone records, with their musical accompaniments. The music is now being transcribed and the material is under preparation for the press.

Publication:

One volume, date not yet determined.

All allotments are disbursed and accounts audited through the office of the President, which is represented on the Council by the Assistant Secretary of the University. Any portion of an allotment not expended at the end of the current year lapses into the general fund, unless reappropriated by action of the Council.

The growth in knowledge of the work of the Council throughout the University, and increasing interest, have led to increasing opportunities for the support of research undertakings. This fact and the prospective increase in coöperative projects cause an enlarging demand for funds. Thus, to carry out the plan for an investigation of religious and cultural history in Mexico, now proposed and ready for organization, would require a minimum of \$18,000 annually for several years, which is nearly half the present sum under the control of the Council. At the end of 1931, the three-

year period expires for which an appropriation was made by the General Education Board. It is to be hoped that, based on the initial showing which has been made, a new appropriation may be secured and sufficient funds found for the development of our research work in the fields concerned.

The question of publication is a knotty one, and will become more insistent as the results of the projects now going on accrue in manuscript form. Consideration was given to the subject at a number of meetings during the past year, and while no solution has yet been reached, the Council has been much encouraged by the sympathetic attitude of President Butler and Mr. Frederick Coykendall of the Columbia University Press. It is to be hoped that when further funds are secured for humanistic researches here, they will be sufficient to insure publication of the results and will be free from restrictions which would prevent their use for this purpose if necessary.

Respectfully submitted,

ROBERT HERNDON FIFE, Chairman

June 30, 1930

SCHOOL OF ARCHITECTURE

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

As Director of the School of Architecture, I have the honor to submit the following report for the academic year ending June 30, 1930:

Man's achievement in art reflects his ideals of beauty. What visions rule his mind, guide his hands in his work, give beauty to his creation, if, in his soul, he sees beauty! But if he has not a fine ideal of beauty, his work is without charm.

In this mechanical age we are surrounded by new inventions of form, which show function, power, and movement; forms which amaze and impress us, but which rarely exhibit the elements of beauty. These forms are not fundamental human records, familiar to us through long association; they have not yet passed through the fire and alembic of human experience which sublimates them into symbols of elemental experience and life.

Today things, rather than ideas, engross our minds. We invent and construct to attain material satisfactions; rarely build for ideals of beauty.

Beauty appeals to us where we see it, and when we are searching for it, but while our vision is filled with new forms and devices, we forget the beauty of the past.

Men, women, and horses are still the most eloquent forms in art, today, as they were in classic times, because they represent elemental and natural phenomena which are in harmony with nature and with us, for art appeals through forms which suggest some association or experience.

Today we explore the heavens with greater telescopes. We examine the bottom of the sea in the deepest diving laboratory; we cut atoms into electrons; we fly around the world; we do extraordinary and unheard of things which would be beyond the power of the gods in the Periclean Age, but, try as we will, we cannot carve a statue, nor design a building, nor write poetry comparable to the sublime art of the ancient Greeks.

In time our achievements must surely be molded to a noble ideal, but our forms have not yet been sublimated into beauty. We have not yet gone far enough toward an ideal.

Our forms and expressions do not spring from spiritual impulses. We are so engrossed with functions and results that we forget the element of beauty. We build bigger and bigger, higher and higher, instead of more and more beautiful. Our inventions and mechanical contrivances to control natural forces tend to overproduction of the commonplace. Our ideals are too cheap. We endeavor to find a short cut to achievement. The latest novelty in painting, sculpture, and architecture is admired as a work of art, if it is "something different."

The great material advantages we enjoy should free us from grinding necessity, should help us to achieve nobler art. We must admit, however, that we do not produce sublime music, great literature, nor great art.

But the hope of the world is Youth. Youth has courage, force, ambition; Youth flew the Atlantic; Youth won the War. Youth believes in what he sees and is not enthusiastic about the past and its ideals. When once he becomes inspired by fine ideals in art, he will mold the world in that image. He will then create beauty. It is for us to show him the noble vision and to guide him toward a sublime ideal. In such measure as we can help him to a beautiful ideal we will contribute to bringing beauty into the coming architecture and the other arts.

The University now teaches the history and appreciation of fine art, but this is less important than developing fine ideals and standards in creative fine art.

The ennobling influence of beauty is as potent for enlightenment as are philosophy and religion. Creating stand-

ards of excellence and fine ideals in architecture, painting, and sculpture, under the guidance of the best masters, is the mission of the University.

This brings up again the idea of an art school for all of the fine arts. In view of the pressing need of a well-founded school of art in New York City, the report of the School of Architecture brought the idea to your attention in 1928. The situation at present demands such a school with even stronger insistence. However modest a beginning we must start with, we could, with advantage, begin if the idea were approved.

During 1929–1930, the registrations in the School of Architecture were as follows:

	Winter	Spring
Candidates for the degree $ \begin{cases} B.Arch. & . & . \\ M.S. & . & . \\ Ph.D. & . & . \end{cases} $	95	94
All professional work	3	3
Ph.D	I	I
Combined Course (combined with college)	19	14
Total	118	II2
University Extension	400	398

Fifteen students in the School of Architecture were graduated with the degree of Bachelor of Architecture, and two with the degree of Master of Science in Architecture.

The Schermerhorn Fellowship, with a stipend of \$1875 for travel abroad, was awarded to Geoffrey Platt. The jury for this award was composed of Messrs. Charles Butler, Harvey W. Corbett, Professor L. C. Dillenback of the University of Illinois, Mr. Grant Simons, and Professors William A. Boring and Joseph Hudnut. The problem involved the design of a municipal auditorium. Gerald J. Vicker was placed second; C. Bolton White, third; William S. Morris, fourth; and H. Allen Tuttle, fifth.

In public competitions, C. Bolton White received one of the two Fontainebleau Prizes, through the Beaux-Arts Institute of Design, for the design of a suburban coöperative apartment house.

The Alumni Medal, awarded annually at Commencement by the Alumni Association of the School of Architecture, to the student who has maintained the highest standard in design throughout his course, was awarded to C. Bolton White.

The University Graduate Fellowship, with a stipend of \$1800, for study toward an M. S. degree in Architecture, was assigned to C. Bolton White for a year of study in the School of Architecture in 1930–1931.

The American Institute of Architects' Medal is awarded annually at Commencement to the student who has maintained, during his entire course, the best general standard of scholarship in all departments. This was bestowed upon Gerald J. Vicker.

A large oil painting of the Gates of Glory, Santiago de Compostella, was presented to the School of Architecture by Mr. William Sanger, the artist, and now hangs in the Director's Room.

The School of Architecture was the recipient (from Princeton) of a large number of casts from the Princeton Expedition to Syria. The most important of the casts consists of a monumental doorway taken from the cloister at the Kabiska—a doorway measuring about twenty feet square, with a superb lintel and ten youssoirs.

The School was fortunate in receiving two special scholar-ships for aid to deserving students. One was donated by Wallace K. Harrison (\$200); the other by Professor Joseph Hudnut (\$400).

Mr. Harvey Wiley Corbett gave his series of five lectures throughout the year. These lectures were greatly appreciated by the student body.

The Director was absent from the School during the Spring Session on sabbatical leave. He was the Millett Visiting Professor of Fine Arts at the American Academy in Rome.

Mr. Cecil C. Briggs, who was graduated in 1928, is now a Fellow in the American Academy in Rome.

Mr. Lyman C. Douglas was again appointed Special Fellow in Architecture in the American School of Classical Studies at Athens for another year of work.

The School functioned perfectly during the absence of the

Director, under the guidance of Professor Joseph Hudnut, Acting Director.

The Harvard University Press is publishing Professor William Bell Dinsmoor's book on The Archons of Athens in the Hellenistic Age.

Professor Joseph Hudnut published in 1929 a book on Modern Sculpture (Norton, N. Y. 90 p. octavo).

Respectfully submitted,

WILLIAM A. BORING,

Director

June 30, 1930

SCHOOL OF JOURNALISM

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to submit the eighteenth annual report of the School of Journalism.

The registration for the year 1929-1930 was as follows:

1929-1930	Candidates for Degrecs		Candidates for Certificates		Non- Matriculated	
	Men	Women	Men	Women	Men	Women
First Professional Year Second Professional	31	34	4	2	5	2
Year	38	37	2			
Graduate Students	9	17				
Totals	78	88	6	2	5	2
Grand Total						181

The first professional year in 1929–1930 included 35 men and 36 women as against 39 men and 37 women in the previous year. Of these, 12 men entered from Columbia College, 4 women from Barnard, and 2 men and 2 women from University Extension, 20 in all from the University. The remaining 51 had received their college training in various institutions, including the following: Bowdoin, Canisius, City College of Detroit, College of the City of New York, Colorado State Teachers College, Connecticut Agricultural College, Connecticut College for Women, DePauw, Drury, Eastern Illinois State Teachers College, Fordham, Goucher, Hunter, New Jersey College for Women, New York University, Princeton, Rhode Island State College, Skidmore, Sophie Newcomb,

Southern Methodist, Stanford, Sweet Briar, Syracuse, Trinity (Washington, D. C.), University of Alabama, University of Buffalo, University of Chicago, University of New Hampshire, University of Pennsylvania, University of the South, University of Texas, University of Wisconsin, Vassar, Wabash, Wellesley, and Wesley.

Of the 71 undergraduates in the first year, 19 reported their home residence as being in New York City. The remaining 52 came from the following states: Connecticut, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, and Wisconsin.

The figures given above call for no comment except on one point. There has been a small but steady increase in the number of students and in the number of graduates. The latter numbered 56 in 1927; 65 in 1928; 61 in 1929; 78 in 1930. Details are given in the following table:

Year	1	1.S.	B.Lit.		Certificate		Total	
1 647	Men	Women	Men	Women	Men	Women	Men	Women
1927	7	4	24	17	3	I	34	22
1928	5	8	30	17	4	I	39	26
1929	4	7	22	25	2	I	28	33
1930	5	8	32	31	I	I	38	40

The most important feature of the school year was the decision of the Alumni Association to join the University Federation of Alumni Associations. It is hoped and believed that this indicates the purpose of the alumni to take a more active interest in the work of the School. When the short period of the School's existence is taken into account, the number of our graduates holding important positions in the profession is remarkable; some of them have already found places on the teaching staff, and within the next few years others will doubtless be found eligible for vacancies on the Administrative and Advisory Boards.

One of our earliest alumni, Carl W. Ackerman, delivered the annual address to the graduating class in St. Paul's Chapel, choosing as his subject "Journalism in the 'Machine' Age." He pointed out that not the machine, but the power of suggestion was the greatest force in human life, and that journalism had become in modern times the indispensable servant of progress. He went on to say:

The standards and ethics of journalism are not perfect but they have advanced as rapidly, during the "Machine Age," as the standards and ethics of any other profession. In many notable instances the progress of individual journals, magazines, and publishing houses, in raising the standards and the ethical ideals of the profession and the business of journalism, has been above the average. Also, the influx of technically trained men and women from schools of journalism and from colleges and universities has contributed to the growth of public confidence in the press and to the advancement of journalism as a profession, largely because these men and women have not possessed machine-made minds. Journalistic thinking has not become standardized.

Evidently the greatest service to young graduates in journalism can be rendered by thoughtful addresses, such as the above, given by men who have had long and successful experience in the practice of the profession, and are themselves graduates of the School.

During the year two additions have been made to the staff: Mr. Elmer Davis, formerly of the New York Times, and Mr. Carl Ackerman, one of our own alumni, both appointed Associates in Journalism. Mr. Barrett H. Clark, who has previously given the Summer Session course in dramatic criticism, will, during the academic year of 1930–1931, be in charge of the course in that subject hitherto entrusted to Dr. Joseph Wood Krutch, who is holding a Commonwealth Fellowship abroad.

The year has been marked by a lively discussion of the purposes, methods, and achievements of schools of journalism in general. Mr. Edward Marion Johnson, retiring president of the American Association of Teachers of Journalism, at the annual meeting at Baton Rouge confessed, in an excess of humility, that in his opinion "a genuine professional school of journalism" does not exist; and he has given evidence of

sincerity by previously retiring both from his professorship and from journalism to a travel agency. Apparently his idea is "training for journalistic leadership," and the admission of graduates to the profession at the top instead of at the bottom—a dream not likely to be realized.

The Committee on Schools of Journalism appointed by the New York State Publishers Association made a report which was less extravagant and probably more likely to be useful. The Committee began by an inquiry into the subjects taught in twenty leading schools of journalism, and found that the professional courses average about one-fourth of the 120 or 130 semester hours usually required for a college degree. The division was approximately as follows: reporting, 9; copyreading, 6½; editorial writing, 3½; history of journalism, 2½; law of the press, 2; special articles, 3; feature writing, 4; ethics of journalism, 2. Another quarter of the required points go to general courses which are thought useful to the journalist but are not specifically professional in character, divided thus: history and political science, 12; economics, 8; English and literature, 14. From these averages there are wide deviations in various schools, and the Committee wisely declined to recommend any standard curriculum, considering it preferable to leave schools and departments of journalism "to thresh out their own problems, collectively at annual conventions, and individually in their respective institutions." They did, however, make recommendations on some points, of which the principal ones are summarized below:

- 1. The number of students in a journalism class should be limited.
 - 2. Practical work should not begin until the second year.
- 3. Members of the journalism faculty should have had at least three years' newspaper experience.

The Columbia School of Journalism has, it may be remarked in passing, adopted these principles from the time of its foundation.

The most elaborate document of this kind issued recently was no doubt the report of the Committee on Schools and Departments of Journalism appointed by the American Society of Newspaper Editors. It was a small committee (consisting of four members) and it was divided in opinion on lines which the report itself indicates. It is worth while to quote a paragraph or two from the report to make the matter clear:

Your committee finds that there are two schools of thought among editors, when consideration of departments of journalism is brought up. One school wishes the departments of journalism to stop turning out budding columnists, would-be dramatic critics and book-reviewers, young men who wish to start as editorial writers. Instead it wishes them to graduate men whose aspiration is to be good police reporters and expert copy-readers. Such editors frankly want the departments of journalism to be trade schools. They want to be relieved of the torturous work of teaching copy-reading, office routine, and the elements of news gathering. They believe that given relief on this score they will be able to discover such columnists, critics, reviewers, and executives as they need. A majority of your committee, while seeing the point of this attitude, feels that it is too utilitarian, unconsciously too selfish, to be acceptable in this American Society of Newspaper Editors.

Now the second school of thought with regard to preparation for journalism, and the one with which your committee finds itself allied, wants the departments of journalism to equip the youth of today for the journalism of tomorrow with a broader background, a surer cultural foundation, a wider understanding of the history and problems of the sciences, the arts, and the manifold relationships of men to society, than most of us have acquired. We want the departments of journalism to turn out men, some of them our own sons and the sons of our friends, capable of appraising the changed and strangely new world which will be theirs tomorrow. We want these boys-of course they will start at the bottom-capable of rising to the posts of great newspaper power, equipped to wield that power intelligently. In other words, we wish them, while they are collecting police news and reporting banquets, to carry the mental equipment which rightly directed will one day invest them with editorial control. Each graduate ought to have in the knapsack of his mind the baton of the editor and the publisher.

The principles set forth in the last paragraph are excellent, and I know no professor of journalism who would not accept them; it is the application of these principles to the problem of teaching that is remarkable—even startling. From the above premises the report makes a jump to this revolutionary conclusion: "Your Committee would recommend that this society seriously consider urging that departments of journalism be graduate schools."

I have described this suggestion as "revolutionary," for what are the facts? The report of the Committee states in an appendix that there are 5,885 students of journalism in 56 American colleges and universities; all these are undergraduates. The report does not even mention the graduate students, but a year ago there were exactly 100, of whom 18, or nearly one-fifth, were in Columbia University. There are thriving schools, with undergraduate students running into the hundreds, who have not a single graduate student in journalism. Is it to be expected that they will wipe out these undergraduate classes (with the instructors in charge of them) on the mere chance of gaining a handful of graduate students?

The question of the point in the university curriculum at which instruction should begin has been under discussion for the last twenty years. Recording present practice, the report of the New York Publishers Association correctly states that "most schools begin practical work in the sophomore year." A few start in the freshman year; a few (including Columbia) start in the junior year. As three-quarters of the Columbia students come from outside New York City, three or even four years in another university are frequently taken in fulfilling the Columbia requirements for admission, so that the Columbia School of Journalism is probably nearer the ideal admired by the Committee of the Society of Editors than any other school; of the 32 men and 31 women who took the Columbia B.Lit. in Journalism this year, 9 men and 17 women had already a Bachelor's degree in arts or science. But the Columbia School of Journalism is situated in the principal center of American newspaper activity, in which the profession of journalism has reached a high degree of specialization. There are other schools intended to serve the demands of states still mainly agricultural, and these universities are often not in a position to demand five years' study for the beginning journalist instead of four after he has passed out of the high school. Even in New York City, a graduating journalist thinks himself lucky if he gets a position with a salary of forty dollars a week; in smaller cities and on country newspapers, beginning salaries of twenty-five dollars a week

are not uncommon. In a small city or country district an intelligent youth of twenty can do the ordinary round of a reporter's duties without serious risk, if his work is properly supervised. If it is demanded of the trained journalist that he should have a year's study beyond the A.B., many papers will be served by youths just out of high school who have had no professional training at all.

The provision of professional training in journalism is a problem of adjustment to actual conditions and not a matter of mere theory. College education being what it is, and the economic rewards of journalistic work being what they are, at what point in the curriculum is it advisable that professional training should begin? The studies which fit a man for the practice of journalism divide themselves into two groups. First, we have a group of fundamental or preparatory studies, which are again, by common consent, subdivided somewhat as follows:

- I. Practice in writing and the study of literature.
- 2. History and the social sciences (politics or civics, economics, psychology, and sociology).
 - 3. Foreign languages and international relations.

All these are subjects which ideally should form part of the equipment of every educated man, but art is long and life is short. Which of them and how much of each should be required of the student who is preparing for journalism is a matter of adjustment to the kind of person he is and the kind of work he is likely to do. But fairly early in his college career he should undertake these studies (or such of them as he has time and ability for) in the professional spirit; that is, he should acquire these knowledges and skills not merely as desirable accomplishments for the conduct of life but as necessary tools for the work whereby he intends to serve the community. So doing, he will study them more earnestly and intensely. Educationally it would be foolish, from the teacher's point of view as well as from the standpoint of the personal advantage of the student, to disregard this element of serious professional interest.

The second group of studies is more strictly professional, including:

- 1. Reporting.
- 2. Copy-editing.
- 3. Literary, dramatic, and musical criticism.
- 4. Editorial writing.
- 5. Feature writing and magazine work.
- 6. The psychology of news interest.
- 7. The history of journalism.
- 8. The law of libel.

It is obvious that all these studies cannot, as the Committee of the Society of Editors seems to think, be crowded into one graduate year. Even if they could, it would be a mistake to divide them mechanically from the first group of studies on the ground that the former are purely academic, and the latter purely professional; they are not. In spite of all attempts to keep them separate, they overlap; and they should. both for general purposes of instruction and for professional reasons, be taught together. The so-called academic subjects need the stimulation of professional interest. The professional subjects rest upon the first group of studies and cannot get on without them. This was clearly recognized by Joseph Pulitzer in his famous article in the North American Review of May, 1904; and it has always been recognized in the organization and administration of the School founded by the Trustees of Columbia University by means of his benefaction. While no member of the Faculty of the School of Journalism is inclined to minimize the importance of his own special subject, we have all kept to the ideal of a combined cultural and professional education which was in Joseph Pulitzer's mind. It is with each of us not merely a matter of tradition, but of strong personal conviction, partly, no doubt, because care has been taken to choose as teachers men not only of long professional experience but of general cultivation and wide intellectual interests. Reporting and copy-reading are occupations dependent not merely upon professional skill but upon knowledge of men and affairs, of local, national, and international organization; in these courses there is no more frequent or more bitter complaint on the part of the instructor than that a student "does not know anything." Obviously, the competence of a critic of literature, drama, or music depends mainly on his knowledge of the particular form of art he is dealing with; and feature and editorial writing rest also upon knowledge and judgment, not merely upon facility of expression. The psychology of news interest is the application of general psychological principles to newspaper work; the professor who teaches it needs to be familiar with both the principles and the newspaper.

It should, moreover, be remembered that these professional studies have a general as well as a particular educational value. The first business of the newspaper man is to be intelligent and every one of his studies should contribute to his intellectual capacity. If anyone thinks that the reporting of any matter of public importance, a night's copy-editing, the writing of a feature or editorial article, or the critical judgment of a new book or a new play can be done without considerable mental exertion, he should try it, and no long course of practice will be needed to convince him that all of these are strenuous exercises of intellectual effort, which demand qualities of mind requiring both natural endowment and careful training.

It is gratifying to note that both the committee reports discussed above pay notable tributes to the devotion and capacity of teachers of journalism; and the report of the Society of Editors, though it deals somewhat rashly with a complicated educational problem, demands more university education, not less. With this general trend the policy of the School of Journalism of Columbia University is in entire accord. From the beginning the School has recommended, for those who are able to take it in Columbia University, a combined college and professional course extending over five years. To students who wish to take four years of college elsewhere it has offered the B.Lit. degree on the satisfactory completion of concentrated professional training in a summer session and a final year. It has taken the lead in the establishment and development of graduate courses, and by the

establishment of graduate and traveling scholarships has encouraged its graduates to pursue their studies beyond the B.Lit. degree at home and abroad. But it is opposed to the exclusion of professional subjects from the undergraduate curriculum, believing that it is preferable for its students to begin their professional training in the formative years of adolescence. In this way they will most easily acquire, by association with their fellow students and their instructors, a sense of professional esprit de corps, a professional standard of ethical practice, and a skill and competence which will secure for them a footing on the first rung of the ladder of professional success. The difficulty facing the young men and women who rely on a college training in preparatory subjects without professional instruction is that of making a start, or at any rate a good start, except perhaps by obtaining a position as reporter on a country paper. In metropolitan newspaper offices, life is too strenuous to allow city editors and copy-desk executives to spend their time in teaching tyros the elements of professional technique. The notion that under modern conditions such tyros can pick up the necessary skill and knowledge in the leisure of the city room is an illusion.

The weak point of most of the recent criticism of schools of journalism is that it is insufficiently supported by evidence. Mr. Johnson, in the address cited above, made the statement that "the percentage of our graduates who stay with journalism is extremely high. But the percentage who advance to the highest posts in journalism is in about the ratio as their total is to the number engaged in journalism." But, in spite of the statistical form of his assertion, Mr. Johnson produced not a shred of evidence in support of it; and there is indeed no sufficient evidence available. Most of the schools and departments of journalism have not been in existence more than ten or twelve years, and one would hardly expect that their graduates would often arrive at leading positions before they were thirty-five years of age. The statistical examination of the employment situation during the first decade of the Columbia School of Journalism affords probably

the surest indication that can be relied on, and it does not bear out Mr. Johnson's pessimistic conclusion. He may have been speaking from his personal experience of the two schools of journalism with which he was connected (Wisconsin and Minnesota); or, more probably, he was giving merely his own personal opinion. Nevertheless, his bare statement is quoted by the Committee of the Society of Editors as if it were evidence in support of the plea that instruction in journalism should be given in graduate schools only. There is pressing need for a competent and disinterested inquiry into the organization and achievements of journalistic instruction in American colleges and universities, and it is to be hoped that such an investigation will soon be undertaken by the Carnegie Foundation for the Advancement of Teaching or some similar foundation. Hitherto it has been felt that the experience of the teaching of journalism is too short to justify an investigation such as has been conducted on a nationwide basis with reference to other professional schools. The attempt of a Committee of the American Association of Schools and Departments of Journalism to grade the instruction given in various institutions by means of an A.B.C. classification failed to win the approval of the members of the Association, and yet there is a widespread and wellfounded opinion that all is not well with the thousands of students receiving journalistic instruction in over two hundred American colleges and universities (56 of these institutions report 5,885 students studying journalism). It is obvious that many of them are taking one or more courses far from adequate to provide them with even an elementary professional training. The need for an authoritative investigation and report is manifest.

The American newspaper is often criticized with the same vigor and the same lack of carefully considered evidence that have characterized recent discussion of schools of journalism. It is freely asserted (1) that the American newspaper is "standardized"; (2) that it has lost its leadership of public opinion and its sense of responsibility for the public welfare; (3) that it is no longer exercising an important educational

function, but has become merely a huge organization for the sale of news; (4) that much of the news published exerts a pernicious influence on public and private morals; (5) that it is mainly dependent upon advertising for its income, and that advertising has therefore an undue influence upon its contents; (6) that it has become part of "big business" and is therefore unduly subject to financial considerations and interests. On these issues, as in the indictment of the schools of journalism, a more secure basis of ascertained fact than has hitherto been provided is necessary for the formation of an intelligent opinion. Possibly it will be the office of the schools of journalism to conduct the investigations which will furnish such a basis. It is gratifying to report that a member of the Faculty of the School of Journalism of Columbia University, Mr. W. P. Beazell, for many years one of our Associates in Journalism, has made a beginning in that direction by publishing in a recent issue of the Atlantic Monthly (July, 1930) the results of an investigation, upon which he has been engaged for some time past, into certain phases of the modern development of the American newspaper.

Admitting that the American newspaper has been subject to the drive for concentration and combination prevailing all over the modern industrial world, Mr. Beazell points out that there have been special forces urging newspapers in this direction. Costs of production-wages, materials, equipment, news service—have greatly increased, and the limits of income from both circulation and advertising, if not actually reached, are already in sight. Circulation, which during and after the War increased by leaps and bounds, is no longer keeping pace with the population. In the past five years circulation growth averaged 1,285 thousand; in the past three years it averaged only 1,141 thousand; in 1928 the gain was under six thousand, the morning papers losing 150 thousand and the evening papers gaining 156 thousand. In Mr. Beazell's opinion, "saturation is no longer a possibility, it is a reality."

Consolidation became inevitable, and during the last five years 95 newspapers passed out; in 1928 and 1929, 25 news-

papers came into existence, mainly in the oil-boom towns of Texas and Oklahoma; even so, there are now 1,944 newspapers as against 2,014 in 1924; the mortality is heavy, averaging one death (usually by a process of absorption) about every three weeks.

Another phase of the move toward concentration is the growth of newspaper chains; over three hundred are now under chain ownership—about one in six. Their circulation represents two-fifths of the circulation of the whole country. The longest chain is the Scripps-Howard with twenty-five links; the next, with twenty-four, that associated with the name of William Randolph Hearst, has about twice the Scripps-Howard circulation. Pittsburgh, which formerly had four morning and four evening newspapers, now has one morning and two evening newspapers-all (in no invidious sense) in chains. Personal ownership of a single newspaper threatens to become a thing of the past; in the last three years, stocks and bonds have been issued by forty-eight newspapers to the amount of one hundred and thirty million dollars. One paper, for its debentures, preferred stock, and sinking fund. has to earn more than a million dollars before it can pay anything to its common stockholders; these fixed charges called for two-thirds of the average profits of the paper during the preceding five years. "Inevitably there has been a shift of emphasis from the editorial to the business side." The management must give its first attention to earning regular dividends.

The result is that the "crusading" newspaper has almost disappeared. "The American newspaper as an institution is now unmistakably on the side of the established order. Quite definitely its function has become the merchandising of news, its first page the show window, and its columns the counters on which the widest possible array of goods is displayed."

Along with commercialization has come standardization. Associated Press matter must be published as it is received and not "edited" in the newspaper office; in addition to its regular news services it supplies photographic and feature

services averaging six pages a week; cartoons and comics are also to be regularly supplied. The United Press sends its clients a Red Letter service of thirty thousand words a week, and the International News Service distributes daily seven columns supplementary to general news. "The little that the news services have not done has been taken care of by the syndicates."

Commercialization, standardization, mergers, chains, organized news services, local and world-wide, have arrived, but not yet mass production. The chain newspapers still have a recognizable individuality; there are still important personalities in the newspaper world, exercising their influence, not in the old way, it is true, but in a different way and over a wider area. The more the process of producing a newspaper is mechanized, the more necessary it is that the directing personnel should be men of character, insight, and originality. It may be wise for the schools of journalism to send out fewer graduates, but there will be general agreement that they should choose and train better ones. If a newspaper writer is to count his readers by millions instead of thousands, it is the more necessary that he should have sound judgment and thorough knowledge. The cost of material production has grown so enormously that the expenditure on the editorial staff tends to become almost insignificant. The great newspaper corporations of the future will insist upon efficient service, and will have the means to pay well for it. The editorial staff may be few; they must be fit for their work. It should be the ambition of this and every self-respecting school of journalism to make them so.

Respectfully submitted,

J. W. Cunliffe,

Director

June 30, 1930

BARNARD COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to submit the following report on the condition and progress of Barnard College during the academic year 1929–1930.

The enrollment in our four regular classes has been as

follows:

	1928-1929 1929-1930
Seniors	192 ¹ 227
Juniors	318 237
Sophomores	244 247
Freshmen	314 311
Total	1,068 1,022

In addition to these regular students we have had 54 unclassified students and 28 special students, making a total of 1,104 primarily registered in Barnard College, a decrease of 42 as compared with last year.

Besides the students primarily registered in Barnard we have had 62 students from Teachers College and 234 from other parts of the University taking some courses with us. These figures are larger than usual because of our distinguished lecturers from abroad. The total registration has been 1,400, a number 108 greater than last year.

On Commencement Day 247 candidates were recommended by Barnard College for the degree of Bachelor of Arts.

The membership of our Board of Trustees has been changed by the retirement of Dr. Howard Chandler Robbins, who found himself unable to attend our meetings, and whose

¹ Includes 2 Barnard seniors registered in the first year of professional schools

resignation was tendered and accepted with sincere regret. The Board will greatly miss his wise and forward-looking counsel.

On November 13 occurred the death of Mrs. Joseph Hodges Choate, one of the founders of the College and for forty-one years a member of the Board. Mrs. Choate was interested in the cause of women's education as far back as 1883, when she was one of the leading spirits in presenting the petition which asked the Trustees of Columbia College to admit women to the same educational advantages as men in that institution. She was also largely responsible for the organization and early development of the Brearley School for Girls. It was natural, therefore, that she should have been one of the first women to be approached to serve on the Board of Trustees of Barnard College in 1888. She was Vice Chairman of the Board from its organization until her failing strength made attendance difficult, and she retained until her death her position as Trustee. Mrs. Choate was a very tower of strength to the young and struggling college. Her position in the community gave it prestige and created confidence in its usefulness and its stability. Her knowledge of the educational needs of New York, her high standards of accomplishment and her energy in making friends and supporters for the College, as well as the personal generosity of herself and her husband, put Barnard College immeasurably in her debt.

There have been several new members of the Faculty during the past year: Dr. Cornelia Carey in the Department of Botany; Miss Minor W. Latham, Miss Ethel G. Sturtevant, and Dr. William Cabell Greet in English; Miss Blanche Prenez in French; Miss Grace Goodale in Greek and Latin; and Dr. Paul A. Smith in Mathematics, all promoted from lower grades to the rank of Assistant Professor. We have also had two brilliant and distinguished scholars from abroad, who have contributed greatly to the work and the life of the College: Dr. Charlotte Buehler, from the University of Vienna, in Psychology, during the Winter Session, and Dr. Eileen Power, of the London School of Economics, in Medieval History, during the Spring Session.

Professor William Haller of the Department of English and Professor Peter M. Riccio of the Department of Italian have been absent on leave for the whole year, doing research work abroad on grants from the Council for Research in the Humanities. Professor Elizabeth Baker of the Department of Economics and Social Science was absent for the Winter Session, engaged in research on a grant from the Council for Research in the Social Sciences. Professor Georgina Gates of the Department of Psychology has been absent for the Winter Session, and Professor Marie Reimer of the Department of Chemistry has been traveling during the Spring Session and doing research in Java. The Dean has been absent during the Spring Session traveling in the Mediterranean, and Professor George W. Mullins has been a very competent, tactful, and wise Acting Dean.

Professor Grace A. Hubbard, who retired from active service three years ago, died on September 21. Miss Hubbard had been one of our most stimulating teachers. Though retired, she had continued to take an active interest in Barnard, and we miss her greatly from our community.

With very deep regret we record the resignation of Mrs. Emily James Putnam from the position of Associate in Greek and Latin. Dean of the College from 1894 to 1900, Trustee from 1901 to 1905, she very generously returned to us in 1914 to conduct a course on Greek literature in translation. Her two lectures a week have been among the brightest jewels in our curriculum. It has been a very great privilege for her many students, during the past sixteen years, to come in contact with her brilliant mind, her scholarly knowledge of Greek literature, and her contagious appreciation of its humanity and its beauty.

During the year the College received gifts amounting to \$68,766. This includes a payment from the Olivia E. P. Stokes estate amounting to \$39,321. The principal payment from this estate, \$380,063, came at the very end of the fiscal year 1928–1929 and, though anticipated, was not formally recorded in the Dean's report of a year ago.

The undergraduates again raised \$2,000 for international

fellowships. We received also \$5,000 to establish the Charlotte L. Jackson Scholarship, \$700 for special scholarships to send juniors to Geneva for the summer, and several other donations for scholarship purposes.

The Class of 1930, on its graduation, presented to the College a section of brick wall in front of Barnard Hall and two stone benches for the Milbank Cloister, both very welcome gifts.

The Class of 1920, as its decennial gift, gave \$2,500 for library endowment, the income to be used to purchase books of English and American poetry.

The Class of 1905 had anticipated its twenty-fifth anniversary gift in presenting to the College several years ago the beautiful Greek Games statue by Mr. Chester Beach.

For our Summer School for Women Workers in Industry, which has continued to prosper and arouse much interest, we received gifts amounting to \$12,225.

The Associate Alumnae gave us \$1,000 towards the cost of the Alumnae Register, and secured \$565 towards the Barnard Camp Fund.

During the year there was considerable further discussion at Columbia and at Barnard of the plan of retiring allowances for officers whose pension expectations under the Carnegie Foundation had been seriously reduced. The plan outlined in the Dean's report of last year was improved by substituting sixty-five for seventy as the normal retiring age, and allowing these officers to choose instead of the contributory system, if they prefer, the retiring allowance they would have received under the rules of the Carnegie Foundation as in effect from 1922 to 1929—that is, one-half of their active pay, based on the average salary for the last ten years of service, with a maximum allowance of \$3,600 available at the age of seventy. In this improved form the plan was formally approved by our Trustees in May.

At this last Commencement we graduated the first class under our new curriculum. Careful studies are being made of the election of courses by the students who entered under this new plan and a comparison with the prescriptions of our former curriculum. After a few years some interesting material will be available, and possibly we may arrive at some illuminating conclusions.

For many years we have been admitting in the middle of the academic year a group of new freshmen sufficient in number to form one section of a prescribed course. For some time past we have felt that the number and quality of the applicants for admission at this time of year hardly warrants our making the effort to organize programs of study for them. Accordingly, the Faculty has decided that after the year 1930–1931 no group of so-called "February freshmen" will be admitted. We may, however, continue to admit in special cases a freshman who can fit into our existing program.

The publicity work of the College, to which we have been giving considerable attention during recent years, has been progressing satisfactorily. The alliance of the Seven Women's Colleges has been active in securing articles in various periodicals. It also organized in November a rather notable dinner at the Hotel Astor, at which about eight hundred persons were present and the Honorable Charles Evans Hughes most kindly presented in an eloquent address the claims of the women's colleges for public support.

The publicity committee of our own Alumnae Association issued a charming set of postcards with pictures of our buildings and our campus, and also published a volume of lyrics selected from the Greek Games of the past twenty-seven years. This delightful book has aroused a great deal of interest, and certainly secures for the College a very desirable form of publicity. The appointment of Mrs. Beatrice Lowndes Earle, Barnard 1917, as Assistant to the Dean in charge of contacts with the outside world, will aid greatly in increasing the number of our acquaintances and their interest in the College.

Respectfully submitted,

VIRGINIA C. GILDERSLEEVE,

Dean

TEACHERS COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

The reports of the Directors of the Schools of Education and Practical Arts which are transmitted herewith reveal a year of unusual activity and change. The School of Practical Arts records new requirements for advanced degrees in practical science, a new Institute, that of Practical Arts Research, and progress in many lines in the readjustment of its work to more advanced students. The School of Education, through changes in requirements and reorganization of many courses, shows progress toward professional standards in all its fields. It remains only to discuss certain developments which affect the institution as a whole.

The saddest event of the year and of many years was the untimely death of V. Everit Macy, since 1892 Trustee of Teachers College and for twenty-five years Chairman of the Board. He was the guiding spirit of Teachers College. served on every Trustees' Committee. With the coöperation of Mrs. Macy he took the leading part in each forward step, in the building of the Horace Mann School, in the acquisition of the property at Fieldston, in the building of Russell Hall, in the creation of the Country Club, in the development of the Student Loan Fund, and in the fostering of international relations. No words can describe what he meant to Teachers College. Nothing that we say can express our thanks. We can only pledge renewed devotion to the ideals of public service which he exemplified in his life, and, by sharing his belief in education as the most hopeful instrument of national and international progress, strive to build Teachers College into the institution of his hopes and dreams.

The College gratefully acknowledges the receipt of gifts

and bequests totaling \$2,486,518; among them \$2,000,000 from the General Education Board, for endowment of the Lincoln School; \$103,882 from the International Education Board, for the International Institute: \$100,000 from the Spelman Fund, for the Child Development Institute; a legacy of \$23,988 from the late William Stevens, for the establishment of the Romiett Stevens Scholarship Fund; \$20,000 from the Carnegie Corporation, for normal school education; \$17,000 from the Hartley Corporation, for nursing education; \$12,000 from patrons, for the Lincoln School Research Building Fund; \$11,000 from the Carnegie Corporation, for research; \$9,787 from the Commonwealth Fund, for research; \$8,381 from the Administrative Board of the Horace Mann School for Boys, for the use of the school; \$8,300 from the Keith Fund, Inc., for experimentation in the schools of Wilton, Connecticut; \$8,000 from the Endowment Fund Committee of the Horace Mann School, for the use of the school; \$5,600 from the Keith Fund, Inc., for experimentation in the use of the radio in rural education; \$5,000 from the Hartley Corporation for Psychiatric Education: \$5,000 from the Institute of Social and Religious Research, for the completion of its character education inquiry; \$4,368 from Trustees, students, faculty, and friends, for the George D. Strayer Anniversary Funds; \$4,000 from the American Classical League, for the Service Bureau for Classical Teachers; \$2,000 from Mr. Mortimer L. Schiff, for scouting education; \$1,500 from Mr. Felix M. Warburg, for a research fellowship; \$1,200 from Mr. William Schiff, for the Horace Mann School for Boys; \$1,000 from Mr. Dunlevy Milbank, for the Dean's Emergency Fund; \$1,000 from the Julius Rosenwald Fund, for a series of lectures on negro education and race relations; \$1,000 from Miss Mercy J. Hayes, for the Mercy Jane Hayes Student Loan Fund; \$1,000 from various contributors, for the establishment of the John Angus MacVannel Fund; \$1,000 from Mr. Julius Buchsbaum, for the Horace Mann School for Boys; \$950 from the Parents' Association of the Horace Mann School for Boys, for the use of the school; \$700 from the Parents' Association of the Horace Mann

School, for the use of the school; \$500 from Mr. V. Everit Macy, for the Dean's Emergency Fund; \$500 from Mr. and Mrs. H. G. Friedman, to promote the teaching of science in the Lincoln Elementary School; \$500 from Mr. Maurice Goldman, for the Horace Mann School.

The purpose of Teachers College is to help to improve education in all its forms and stages of advancement, public and private, in the United States and in foreign lands; and its chief means to the accomplishment of this task is the demonstration or experimental school. Grace Dodge caught the inspiration which led to the establishment of the College from her service as a member of the Board of Education of New York City, and from her experiences in settlement work where she came to realize the educational deficiencies of the young women who were products of the public schools. Completion of the elementary school course did not prepare for life, nor did mastery of the subjects taught yield ability to earn a living. The traditional studies which in rural life supplemented the education of home, vocation, church, and community failed to meet the needs of the rapidly growing city, and redirection and readjustment were imperative. Various efforts of the Kitchen Garden Association and other organizations crystallized in the Model School (later the Horace Mann School), founded to demonstrate the place of the manual and household arts in an otherwise bookish curriculum. and in the New York School for the Training of Teachers (from which Teachers College grew) to provide teachers capable of carrying the new ideas into practice. The Horace Mann School was not an addition to Teachers College. If the school and the College did not grow simultaneously, the former was part of the original plan; and for many years the school had a larger enrollment than the College and occupied more than half the classrooms, laboratories, and offices.

From time to time other schools have been added. Because it lacked endowment, the Horace Mann School was forced to depend upon tuition charges for its support, and pupils began to come predominantly from business and professional families able to afford the expense. These parents wanted

their children to go to college and thus tended to force the school into the conventional college preparatory mold. Opportunities for practice teaching and experimentation were, in consequence, restricted, and to fill the need, the Speyer School was established, and was maintained until the student body at the College had changed so as to make practice teaching in the elementary school no longer a necessity. In 1914 the boys of the upper six years of the Horace Mann School were transferred to the new Horace Mann School for Boys in Fieldston, leaving a coeducational elementary school and a girls' high school adjacent to the College. At a later date, under the influence of Dr. Abraham Flexner's profound paper entitled "A Modern School," the General Education Board founded the Lincoln School to test the possibility of a secondary school better adapted to present-day American needs, in which mathematics, modern languages, and natural and social sciences would form the basis for a cultural education, rather than the discipline of ancient languages and formal studies. The building of a good school serving a New York City community was incidental to the development of a new type of education capable of widespread imitation and adoption, and the Lincoln School was placed under the control of Teachers College so that teachers could be trained in the spirit of the new enterprise. Ample funds were granted that the school might be free to innovate and experiment.

With the opportunities afforded by these various types of schools, Teachers College appears to have an ideal organization for the accomplishment of its task; but one should not be too sure of his judgment. Habit and custom may blind one's eyes. Traditions may grow. It sometimes happens that institutions, by the gradual accumulation of slight changes, all unnoticed, become vastly altered. Administrators have learned that appraisals by outside investigators often yield new insight into local problems.

The better to understand the situation of the present and the more wisely to plan for the future, it was decided more than a year ago to request a committee of competent judges from the outside to make a study and appraisal of the work of the Horace Mann and the Lincoln Schools and their relation to the College. The Appraisal Committee was composed of President James R. Angell of Yale University, President Ernest H. Wilkins of Oberlin College, and President Walter A. Jessup of the State University of Iowa. These gentlemen met many times in conference, visited the schools, conferred with the principals, directed the gathering of data, suggested investigations which were made, interpreted the data, and submitted a most valuable report.

The Committee finds the Horace Mann School for Boys to be a conventional college preparatory school of the country day school type. It has exceptional success in preparing its pupils to pass the college entrance examinations. Its graduates do well in college. There is a splendid, though conventional, school spirit. The high school departments of the Lincoln and the Horace Mann Girls' Schools are equally successful in college preparation and their graduates on the whole have slightly better records in college than the pupils from the Horace Mann School for Boys. There are few significant differences among the three schools in the upper years, except for the absence of classical languages in the Lincoln School. Even here Latin is sometimes studied outside of school hours, through tutors provided at home. According to the Committee:

The Lincoln Elementary School is distinctly progressive and experimental, the Horace Mann Elementary School is less so, but still definitely progressive. The three high schools are much more conventional and traditional—this under pressure from the colleges and from the parents who are college graduates and desire their children to prepare unhampered for college entrance.

The Appraisal Committee reports that

The three schools have exercised a wide and profound influence on the schools of the country. The elementary schools are especially influential. This influence is derived partly from textbook production, and partly from the devising of new procedures which have been later adopted, either as a result of visitation, or as a result of the training of teachers at Teachers College, who later accept school positions. The unique nature of the Lincoln School text and curriculum material has been especially significant.

The summer demonstration schools of Teachers College conducted in the Horace Mann School building have also been extremely influential. The visiting by representatives of normal schools and teachers colleges, as well as by distinguished educators from foreign countries, is a striking indication of the position held by the schools.

The Committee feels that prompt attention should be given to the problem of integrating the schools with the College:

Neither the Horace Mann School for Boys nor the Lincoln School has been satisfactorily integrated with Teachers College, with the result that little consistent and continuous joint experimentation has been undertaken. The opportunity for outstanding leadership is hardly equaled elsewhere, and prompt attention should be given to the more effective exploitation of the situation. The Horace Mann Elementary and the Girls' High Schools are more successfully used by Teachers College than the other divisions, but not so fully as might well be the case.

In the case of the Horace Mann School for Boys the lack of integration is no doubt due to its removal from the Teachers College campus and the singleness of its purpose as a college preparatory school; whereas in the Lincoln School there has been from the beginning an apparent disposition for the school to maintain its own identity apart from Teachers College in the case of experimental projects.

Although there may have been ample reason for this isolation in the past, it is our conviction that the greatest contribution to future educational theory and practice can be achieved only by the close integration of the school, which is a laboratory, with the corresponding Teachers College departments. Such relationship has proved of the utmost value in medical education.

The Committee also doubts the wisdom of maintaining three schools so much alike.

It is our belief that these schools should serve distinct functions. The Horace Mann Schools should demonstrate sound educational theory, but the Lincoln School, founded to prosecute educational experimentation and investigation, should continue to be directed to these ends. This is possible in the elementary school under present conditions, but there cannot be much experimentation and investigation in a high school where parents, pupils, and teachers alike have their attention fixed upon College Board examinations which become more difficult year by year. The Lincoln High School cannot become the experiment station which it should be unless the college entrance problem be surmounted. This may possibly be achieved by special negotiations with various colleges to provide dispensation for Lincoln School graduates; or, more possibly, most of the entrance difficulties would vanish by the establishment of a connected

junior college. The extended school would then be free to vary its program as experimentation and investigation might dictate. There appears to be little warrant for the maintenance by Teachers College of three high schools dominated, as the three high schools are at present, by the common purpose of preparation for the College Board entrance examinations.

In short, the Appraisal Committee finds two serious faults in the present situation; one a problem of integration, the other, one of differentiation. "Sound educational theory" developed in the College should be demonstrated in the Horace Mann Schools. The Lincoln School and the various divisions of the College should coöperate in order to provide the desirable "consistent and continuous joint experimentation" which the Appraisal Committee finds absent. The schools should be closer to the College, and they should serve distinct functions.

When the Appraisal Committee suggests the demonstration of "sound educational theory," it raises a question of profound difficulty. Everyone knows that the American secondary school is under fire. Congress has appropriated \$225,000 for a nation-wide study of secondary education. There is a general feeling that something is amiss, and within Teachers College there is at the moment considerable variation of opinion as to what constitutes "sound educational theory" for the high school. Sir Michael Sadler, in the Sachs Lectures delivered at Teachers College in March, 1930, discussed recent trends in secondary education the world over. He expressed his approval of the American ideal of twelve years of schooling at public expense, available to the children of all the people. He made clear his belief in secondary education primarily as liberal education, and outlined his idea of culture and its sources. He furthermore defined the goal of the high school as the production of a relatively small, highly trained élite. and he reconciled the apparently conflicting statements by advocating that the few be selected from all the people, rich or poor, favored or handicapped, by a system of progressive examinations. "Sound educational theory" for the secondary school, according to Sir Michael Sadler, should include the abolition of all social and financial barriers, the development

of a highly perfected system of selection, and the concentration upon a small group of fine and able scholars from among which number would come our élite. Editorial comment in the press and other favorable reactions indicate that Sir Michael struck a responsive chord in the thinking of many of our people.

Professor Thomas H. Briggs, in his Inglis Lecture at Harvard in January, 1930, presented the most severe criticism of secondary education in the United States which has been made during recent years. His fundamental premise is that education should be considered as "a long term investment by the State to make itself a better place in which to live and in which to make a living, to perpetuate itself and to promote its own interests." Considering the implications of this premise in full detail he concludes with the triple accusation that educational "authorities have made no serious efforts to formulate for secondary schools a curriculum which promises maximum good to the supporting State": that "there has been no respectable achievement, even in the subjects offered in secondary school curricula"; and that "no effort has been made sufficient to establish in students appreciation of the values of the subjects in the curriculum such as to insure continued study either in higher schools or independently after compulsion ceases." On the basis of these judgments Professor Briggs concludes, "Assuming the validity of the thesis defended in this essay, a state's attorney might conceivably present against an educational authority (in the United States) an indictment for misfeasance in office and the misappropriation of public funds." It is an interesting commentary on the state of the public mind that so scathing a denunciation of education should pass relatively unnoticed in the public press, to be hidden behind the barrage of criticism of a statement predicting the passing of importance of the private school, which held a less significant place in the argument. "Sound educational theory," according to Professor Briggs, would demand that we know where we are going and that we be on our way.

Professor Paul Monroe, upon the basis of his wide foreign

experience, attacks secondary education from another angle. In many countries of the world he has witnessed the expansion of the secondary school, the increase in numbers of the pupils, and since the War, the breakdown of class lines. He believes that society has advanced to its present place by means of education, but he holds that widespread secondary education of the cultural type is the cancer of society, the misguided cell which by overmultiplication destroys the organism which shelters it. Increasing numbers of secondary schools yield increasing numbers of graduates who are content only with positions in the already overcrowded fields of professional life and government service, the "whitecollar" jobs. Many are doomed to disappointment, and thus there develops a discontented and unhappy "educated proletariat," a floating population which becomes the source of sedition, revolution, and unrest. "Sound educational theory," according to Professor Monroe, would include the restriction of cultural secondary education and the establishment of far more vocational and practical education.

Professor George S. Counts, in the Inglis Lecture delivered at Harvard University in 1929, holds "sound educational theory" as even more difficult to determine. He believes that the American rides in an automobile and thinks in a horse and buggy; that teachers live in the days of Henry Ford and prepare their pupils for the times of the village blacksmith: and that, unless educators see the implications of the new day and adjust education to it, future generations will deem us as stupid and inept as we ourselves properly judge many of our predecessors. It is interesting to receive such a criticism as this. For years specialists in rural education have charged that American education is suited to the city child but not to the child in the country, and have recommended that special investigations should be made of the problems of the rural areas, and special courses provided to help in their solution. It is surprising to hear from Professor Counts that American secondary education is suited only to the bygone agrarian age and that little has been done to adjust it to the industrialized era which we are now entering.

What we have is rural education. What we need is city education. Professor Counts examines certain of the recommendations of the Commission on the Reorganization of Secondary Education and finds that they rest in "no carefully thought-out theory of society"; that they use phrases "put into our mouths by the old agrarian civilization." "We must soon," says Professor Counts, "accept the challenge of industrial society and proceed to the construction of a theory of secondary education which deals with the problems of modern life." He contends that America has gone through such important changes in the years since the war that our education is lagging far behind.

We used to refer to the Industrial Revolution as an accomplished fact. Now it is recognized as a social change that is only well under way.

A decade ago in Nanking in China the traveler was disturbed until far into the night by the clatter of the looms. At home the father of the family was at his work weaving the thread into brocade, and the wife and the children, young and old, assisted. Just as in the days of Silas Marner, the worker worked for himself, purchased the thread and sold the cloth, and lived an independent, though meager, existence. Life was similar to that in the American colonies before the invention of the spinning jenny and the power loom broke down individual efforts, established the factory system, concentrated population in the cities, and brought on what we know as the Industrial Revolution.

But even in China ten years ago this change was imminent. While Nanking's weavers worked at their hand looms Shanghai already stood wreathed in the smoke of factories; and miserable conditions of work, long hours, child labor, ill health, and other evils which overtake country people unaccustomed to city environment and factory life were beginning to become apparent. The American educator in Nanking might have been tempted, foreseeing the modification that was certain to come, to find satisfaction in considering the relation of education to social conditions in the United States where this industrial change had taken place a century before,

where the problems had long since emerged and had apparently been settled, where the transition had presumably been safely made and the educational implications realized.

There is something of a shock in finding that the satisfaction of the American educator would have had no justification in fact. The recent publication of Middletown by the Lynds and the two volumes of Recent Economic Changes by the Hoover Commission throw an altogether different light on the situation. "The present situation in the United States," writes Professor Gay of Harvard, "may be regarded in future times as but one interesting stage in a lengthening series of somewhat similar episodes characterizing the history of this and other nations. The Industrial Revolution, of which this stage is a part, was not merely a sudden burst of industrial and commercial activity, occurring in England just before the threshold of the nineteenth century, and spreading by transmission or transfusion at successive intervals to other countries. It was rather a new organic growth, utilizing new powers over nature, and expanding over the world with unseen but continuing acceleration. The successive phases of its development we have only begun to analyse." Thus the Industrial Revolution is not a thing of the past. The period from 1780 to 1830 was only the start. The change from "that primitive, egalitarian, individualistic democracy produced by the log cabin, free land, and isolation" began late in the eighteenth century, has continuously progressed since that time, and in the period since the war has modified our society with increasing and heightened results. The full effects have not yet been reached, but important changes in our society are still in the making.

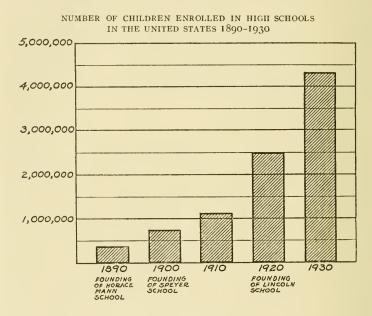
What these changes will be no one can predict, but no American school can be called progressive, no demonstration representative of sound educational theory, and no experiment forward-looking unless there be consideration of the changing world in which we live. We are in great need of economists who can interpret to the schoolmaster the educational needs and demands of this new society of ours. Much must be done in coming years; patient investigations must be made; there

must be keen insight into movements and trends, and wise interpretation of results.

Without benefit of thorough study, however, it is possible to isolate a few of the problems which the new industrialism brings with it and to hazard a guess as to the educational problems involved. There are a few straws blowing about which show the direction of the wind. There is neither time nor space in a report of this sort to discuss in detail the educational implications of this new day and age, but in diagrammatic form we may suggest emphases that the future may make. The first column of the following diagram (pp. 312–313) represents a condition in the agrarian age; the second, the change made in the earlier stages of the Industrial Revolution; the third, the condition of the future as we can best estimate what we are coming to; and the fourth, what the new task of education must be.

There is, however, another problem to be considered before we shall arrive at a "sound educational theory." We agree that education should consider the changing world in which we live and that our pupils should be prepared to live in that world. It does not follow, however, that men and women should be content forever to accept the kind of society which we happen to find. Ingenious men make inventions. New processes are devised. A whole new life develops on this earth. Shall machines, shall inventions, shall industrial processes determine the life which we shall live? If we drift, this will be the case; but it is not necessary to drift. We have in the education of the young an instrument by which man may direct his own destiny, a force which if properly applied may be used by society to reshape itself. It is necessary that we adjust pupils to the changing world in which we live, but it is far more important that we so train them that by their influence they may remake this world into one in which it is good to live. Slaves to the machine we must not be.

It is plain, therefore, that "sound educational theory" will be no easy achievement in the years to come. We must educate all the people and at the same time provide an élite. We must devise an education that serves the state and that overcrowds no special group of vocations or professions. We must fit our pupils to live in the industrialized age and vaccinate them against the diseases of the machine. Sir Michael Sadler and Professor Briggs, Professor Monroe and Professor Counts directed their criticisms at secondary schools in the United States. Their criticisms apply quite as well to elementary education, for with us the distinction between elementary education and secondary education is rapidly wearing away.

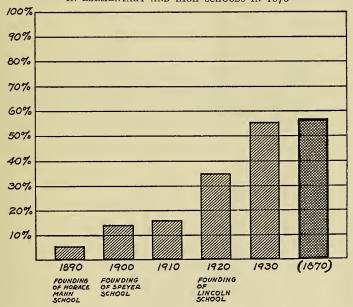


We imported the elementary school from Europe, where it was the common training institution for the children of the masses. We imported also the secondary school, the *Gymnasium*, the *lycée*, which are the European institutions for training the children of the classes preparatory to government service and professional life. We found it inconvenient to retain the parallel relationship, and superimposed a truncated secondary school upon the elementary school. At first the elementary school provided general training for all, while the secondary school was intended to give college preparation

and cultural education for the few. Sometimes this was termed "the people's college." But to-day nearly everybody goes to high school. In fact there is almost the same percentage of those eligible enrolled in high schools to-day as there was in both elementary and high school in 1870. This situation is revealed in the accompanying diagrams.

These statistics indicate that the United States can look forward to the time in the not far distant future when all

ESTIMATED PER CENT OF CHILDREN 15, 16, 17, AND 18 YEARS OF AGE ENROLLED IN SECONDARY SCHOOLS IN THE UNITED STATES, 1890–1930. ALSO PER CENT OF CHILDREN 5–17 (INC.) YEARS OF AGE ENROLLED IN ELEMENTARY AND HIGH SCHOOLS IN 1870



citizens will have had from ten to twelve years of education in a common school, the elementary and high school; and we can be sure that the two names will persist only by tradition, law, or educational convenience, and not because of differing social functions. The school of twelve grades, like the Lincoln School and the Horace Mann School, is not a combination of two separate levels of education, but rather is organized according to the normal and natural plan.

	312	COLUMBIA UNI	VERSITY	
ONAL IMPLICATIONS	POSSIBLE IMPLICATIONS FOR THE SCHOOLMASTER	GREATER IMPORTANCE OF GENERAL AND PREVOCATIONAL EDUCATION INDIVIDUAL VERSATILITY OF GREAT IMPORTANCE VOCATIONAL EDUCATION MUST NOT BE TOO NARROW MUST TEACH IMPORTANCE OF SAV- INGS ADULT EDUCATION HIGHLY IM- PORTANT	INCREASED IMPORTANCE OF SOCIAL STUDIES	IMPORTANCE OF VOCATIONAL EDUCA- TION FOR GIRLS CAREERS FOR WOMEN THE FUTURE AMERICAN HOME?
HE COMING INDUSTRIAL AGE AND THEIR EDUCATIONAL IMPLICATIONS	WHAT WE SEEM TO BE COM- ING TO- INDUSTRIAL REVOLUTION II	All OF THE WORKERS IDLE Some OF THE TIME Some OF THE WORKERS IDLE All OF THE TIME BECAUSE OF (a) Increasing technological unemployment (b) Mergers (c) Emphasis on the younger worker (d) Closed frontier	ALMOST COMPLETE INTERDEFEND- ENCE Great variety of commodities Everything expressed in money value Impersonal relations We buyready-made clothesbaker's breadcanned food	MORE THAN ONE WAGE EARNER PER FAMILY See Stuart Chase, Prosperity—Fact or Myth
	WHAT WE HAVE PASSED THROUGH— INDUSTRIAL REVOLUTION I Massachusetts in 1830	Technological Unemployment Employment for Those Who Can Get It Differentiation of processes Decay of apprenticeship Still free land in West	Increasing Interdependence Trade—but few commodities	FACTORY LABOR OF WOMEN AND CHILDREN Social legislation as a response
PROBLEMS OF THE COM	WHAT USED TO BE— AGRARIAN AGE Colonial New England Illinois when Lincoln was a boy lowa in the days of Vandermark's Folly	EMPLOYMENT FOR EVERYBODY Free land "Anyone who truly wants to work can get a job." "Young man! Go West!"	FAMILY OR SMALL COMMUNITY RELATIVELY SELF-SUFFICIENT Little recourse to trade Barter Personal relationships	Work—A Family Enterprise See Silas Marner The Mill on the Floss Boy Life on the Prairie
P.		Employment	Interdependence	Place of Women and Children

STUDY OF SPENDING AND SAVING CONSUMPTION VS. CONSERVATION LUXURIES VS. NECESSITIES	NEW SCIENCE OF GOVERNMENT HOW TO DEVELOP COOPERATIVE POWERS OF INDIVIDUAL	STUDY OF ART AND SCIENCE OF ADMINISTRATION	MUCH ATTENTION TO PROBLEMS OF THE USE OF LEISUNE PROVISION FOR THE "RAINY DAY" PROBLEMS OF HYGIENE—PHYSICAL AND MENTAL
STUDY OF SPENDING AND CONSUMPTION VS. CONS. LUXURIES VS. NECESSITIES	NEW SCIENCE OF GOVE HOW TO DEVELOP C POWERS OF INDIVIDUAL	STUDY OF ART ADMINISTRATION	MUCH ATTENTION TO THE USE OF LEISURE PROVISION FOR THE 'PROBLEMS OF HYGIE' AND MENTAL
HIGH STANDARD OF LIVING IN SOME WAYS "A pleasure economy" Salesmanship Advertising Dissipation of natural resources Automobiles Radios Washing-machines Etc.	Increasing Government Control by Information Advice Direction	COÖPERATIVE CONTROL SCIENTIFIC MANAGEMENT GOVERNMENT CONTROL Increasingly impersonal	QUICK TEMPO SHORT HOURS—HIGH PRODUCTIVITY PERIODIC SHUTDOWNS MUCH { LIESURE
LOW STANDARD OF LIVING. POVERTY AMONG WORKERS Accumulation of wealth	BECINNINGS OF SOCIAL LEGISLATION Health and morals Hours of labor Conditions of work	Boss and Worker Strikes Boycotts Lockouts Collective bargaining	INCREASING TEMPO LONG HOURS—INCREASED PRODUCTIVITY REGMENTATION OF LIFE Whistles Time clocks
SIMPLE STANDARD OF LIVING "A pain economy"	Laissez Faire Pol.icy Personal initiative and enterprise	Independence of Individual	LEISURELY TEMPO LONG HOURS—LOW PRODUCHVITY RIYTHM OF THE SEASONS
Standard of Living	Control	-artsinimbA noit	Lempo

We used to think of the elementary school as one concept, and the secondary school as another. From now on we must consider both together—just as we formerly considered the elementary school alone—the common training ground for all Americans. Into this twelve-year school will go all the children of all Americans. Forth from it will come young men and women into every walk of life, to play their parts in every phase of our society. We must hold in mind not only clergymen, lawyers, physicians, and business men, but also farm laborers, industrial workers, housewives, nurses, shop girls, chain store employees, and street car conductors. All will be products of this common school.

When Sir Michael Sadler and Professor Briggs, Professor Monroe and Professor Counts addressed the American high school they were thus including the elementary school. Their criticisms also come nearer home, for they certainly include not only the American high school and elementary school in general, but also the Horace Mann School, the Horace Mann School for Boys, and the Lincoln School. "Sound educational theory" must be demonstrated in the Horace Mann Schools. Promising experiments and investigations are the functions of the Lincoln School. What better program for the improvement of the schools and their relation to the College could there be than a response to these suggestions that have been made during the past two years?

The trouble is that we lack the proper integration. When Germany wishes to reform her educational system, she calls the *Reichsschulkonferenz*, and for weeks at a time the leading educators in meeting assembled discuss and hear discussed plans for change. From this large gathering come the decisions of the group, and the changes are tried out and put into effect. In France reforms in education, unless the Minister of Public Instruction be a tyrant, come from the *Conseil Superieur*. To this body are appointed representatives of all shades of educational opinion. Here conflicting ideas are weighed, possible reconciliations effected, adjustments and compromises made. From the meeting of many ideas do reforms emerge.

Teachers College with its three schools should do in miniature what has been done in Germany and France. Let us have our College School Conference. Let us create our Superior Council. Let us appoint representatives from the schools and from the College, from the faculties and from the patrons, to consider the conflicting criticisms and plans for reorganization and readjustment. From this conference would come not only a crystallization of opinion but plans for the future. The Horace Mann Schools could proceed to demonstrate that which was agreed upon as sound. The Lincoln School (if it were liberated from college entrance requirements) could undertake to investigate the most pressing problems concerning which there is doubt. Child Development Institute, the Institute of Educational Research, the Institute of School Experimentation, and the Schools of Education and Practical Arts could coöperate. Then in our microcosm we should have anticipated the movement for reform in American education that is certain to come, and Teachers College again would serve its function of helping to improve education in all its forms and stages, public and private, in the United States and in the other countries of the world.

Respectfully submitted,

WILLIAM F. RUSSELL,

Dean

June 30, 1930

SCHOOL OF EDUCATION

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the Dean of Teachers College

SIR:

I submit herewith my report for the School of Education

for the academic year 1929-1930.

It is a pleasure to announce the appointment of Wilbert L. Carr, A.M., as Professor of Latin, and to record the appointment of the following Visiting Professors: William Boyd, D.Phil., F.E.I.S.; John K. Norton, Ph.D.; and John D. Willard, M.S., for the year 1930–1931; William W. McClelland, A.M., for the Winter Session of 1930–1931; and the reappointment of Samuel Angus, D.D., D.Litt., and of Henry Suzzallo, Ph.D., as Visiting Professors for the Winter Session of 1930–1931, and of Thomas E. Benner, Ed.D., as Visiting Professor for the academic year 1930–1931.

The following promotions have been made in the Faculty of Education: Lois Hayden Meek, Ph.D., from Associate Professor to Professor of Education; Azubah J. Latham, A.B., from Assistant Professor to Associate Professor of Speech; Henry A. Ruger, Ph.D., from Assistant Professor to Associate Professor of Education; and Mary T. Whitley, Ph.D., from Assistant Professor to Associate Professor of Education.

Leaves of absence were granted to: Professors Patty S. Hill, Anna W. Ballard, and Miss Jessica Hill, for the Spring Session of 1929–1930; to Professors Thomas Alexander, Isaac L. Kandel, and Miss Jean Betzner, for the Winter Session of 1930–1931; to Professors Albert L. Cru, Lois C. Mossman, William D. Reeve, and Henry A. Ruger, for the Spring Session of 1930–1931; and to Professors Azubah J. Latham, Donald P. Cottrell, and Willard S. Elsbree for the academic year 1930–1931.

During the year a total of 91 new courses was approved; 14 for the academic year, 69 for the Summer Session, and 8 for the Extramural Division. The following new diploma titles were approved: "Instructor in Psychology," "Psychological Counselor," "Clinical Psychologist," and "Supervisor of Rural Practice." The diploma title "Psychologist" was dropped.

There are now 581 candidates for the degree of Doctor of Philosophy with majors in education. Of this number, 146 were admitted during the academic year.

The total number of students enrolled in the School of Education was 4,519 (not including graduate students with majors in practical arts) as compared with 3,985 the preceding year. The total number of graduate students in the School of Education during the academic year was 2,982. In addition, there were 1,537 matriculated unclassified students, of whom 1,259 signified their intention to apply for the degree of Bachelor of Science. In the preceding year there were 2,538 candidates for the degree of Master of Arts or of Doctor of Philosophy, and three unclassified graduate students.

During the year, the degree of Doctor of Philosophy was conferred upon 82 students, 52 of whom had received the Master's degree from Columbia University. In the preceding year 76 doctorates were awarded; in 1927–1928, 50; in 1926–1927, 60; in 1925–1926, 58; in 1924–1925, 47; in 1923–1924, 40; in 1922–1923, 14; in 1921–1922, 19; in 1920–1921, 7; in 1919–1920, 23; in 1918–1919, 9; and in 1917–1918, 19.

For the academic year 1929–1930, 1,951 students in Teachers College received the degree of Master of Arts; 25 received the degree of Master of Science; and 567 received the degree of Bachelor of Science. The total number of Teachers College professional diplomas granted was 716. These diplomas are granted only in connection with a degree.

Of the 3,962 graduate students, 373 held the Master of Arts degree from Columbia University, and 486 students held the degree of Bachelor of Science from Columbia University. Four hundred and seventy-one institutions were represented.

^{13,962} including graduate students with practical arts majors.

Hunter College	318	George Washington University	12
College of the City of New		Lafayette College	I 2
York	123	Mount Saint Vincent	12
New York University	112	New Rochelle College	12
Syracuse University	76	St. Lawrence University	12
Cornell University	67	Temple University	12
Wellesley College	60	University of Kansas	12
University of Chicago	57	Bates College	ΙI
Smith College	47	Brown University	11
University of Minnesota	47	Bucknell University	ΙI
University of Wisconsin	47	Connecticut College for Women	ΙI
Vassar College	47	Michigan State Normal Col-	
New York State College	45	lege	ΙI
University of Michigan	39	Muhlenberg College	ΙI
University of California	36	Stanford University	ΙI
Adelphi College	34	Swarthmore College	ΙI
Mount Holyoke College	34	University of Missouri	ΙI
Oberlin College	33	University of Oklahoma	ΙI
Boston University	27	Alfred University	10
University of Illinois	27	Elmira College	10
University of Washington	27	Harvard University	10
University of Iowa	23	Indiana State Normal School	10
Iowa State Teachers College .	22	Iowa State College	10
University of Nebraska	22	Johns Hopkins University	10
Howard University	20	University of Oregon	10
Ohio Wesleyan College	20	University of Rochester	IO
University of Pennsylvania .	20	Washington State College	10
New Jersey College for Women	18	Denison University	9
Ohio State University	18	Ohio University	9
Pennsylvania State College .	18	Randolph-Macon College	9
University of Southern Califor-		Rutgers College	9
nia	18	Springfield Y. M. C. A. College	9
Northwestern University	17	Trinity College	9
Middlebury College	15	Tufts College	9
University of Pittsburgh	15	University of Cincinnati	9
Yale University	15	University of Texas	9
Colgate University	14	Allegheny College	8
Dickinson College	14	Carleton College	8
Fordham University	14	Manhattan College	8
Goucher College	14	Miami University	8
Indiana University	14	Ohio State Normal School	8
Radcliffe College	14	Princeton University	8
Texas State Normal College .	14	University of Maine	8
Western Reserve University .	14	Wesleyan College	8
William and Mary College	14	Wilson College	8
University of Denver	7.7	9	

In the choice of subjects other than education pursued by Teachers College students in other parts of the University, the following departments were represented:

									Stenography and Typewriting	
History					·			228	Chemistry	20
Psychology								199	Anthropology	20
French								72	Government	20
Sociology .								66	Latin	19
Comparative	I	it	eı	at	uı	e		52	German	19
Mathematics								51	Zoölogy	19
Philosophy								38	Astronomy	16
Public Law								31	Phonetics	14
Geography.								30	Botany	10
									Library Service	
Economics								24	Music	10
									Physiology	

Thirty-two other subjects were chosen by a smaller number of students. A total of 1,463 class registrations shows the interest of Teachers College students in other phases of University work.

Eleven of the group who attended the University of Paris during the Spring Session were granted the Diplôme de la Sorbonne.

In his inaugural address President Hutchins of the University of Chicago defined the obligation of the professional school as a dual one—the obligation to experiment with methods of educating first-rate professional men, and the obligation to participate with the rest of the university in research. This emphasis upon the experimental side of professional education is well placed in the case of those professional schools that are playing a leading part in the molding of the very institutions for which they are developing a professionally trained group.

Teachers College is such a professional school. The part it has played in the development of public education alone, through the agency of its staff and the leaders it has trained, has perhaps made the function of molding the institution which it serves preëminent. It has performed this function through the agency of the occasional individual who at Teachers College has received that combination of training and inspiration which has made it possible for him to serve needs which before his time lay dormant or unformulated. This function has been particularly associated with those professional activities which owe their existence to the insight and labors of members of the Faculty of Teachers College.

In the development of a new movement which seeks to establish the recognition of the need of a group of specialized workers, the matter of the development of the best means of professional training is of importance in the early stages because of the necessity of providing the best possible type of leaders to initiate the movement and also because of the necessity of helping the smaller institutions to play their part in the training of workers, once the need has been recognized. In the later phase of the cycle of development, when the need for the movement has been so well established that it has resulted in the organization of competing centers for the training of workers, the experimentation in better ways of professional training would seem to become the chief reason for the continuance of such professional training in the parent institution.

In the development of every successful movement, therefore, from its early promotional stages to the ultimate goal where the parent institution finds itself competing more or less equally with its own offspring, experimentation in professional training is one of the outstanding functions of such an institution as Teachers College. That this has been recognized by the members of the staff of the School of Education is indicated by their activities during the past year.

The requirements for the Master of Arts degree have been modified to give greater emphasis to specialized professional work. As a result of the work of faculty committees headed by Professor Briggs and Professor Strayer, the requirements for the Master's degree, on the side of specialized professional training, have been made to correspond closely to the requirements previously set up for the professional diplomas. The minimum amount of specialized professional training in a given field is set at twelve points. This is permitted to vary

among the teaching groups up to a maximum of twenty-four points. The variation will depend upon the strength of the competing needs for knowledge and training in addition to specialized training.

Through the leadership of a faculty committee headed by Professor Wilson, there has been an accompanying change in the educational background requirements. These have been changed from three general courses to a minimum of eight points selected from at least three of the fields of history of education, educational philosophy, educational sociology, comparative education, educational psychology, and educational economics. This change, when coupled with the investigations now being carried on by the general course groups to determine the content of each of these more or less academic divisions which will contribute toward a broader philosophy of purpose in education and perhaps toward a more complete philosophy of method, carries some promise of more adequate guidance in the shaping of the structure of American education.

A variety of attempts are being made to improve the administration of the offerings of the College with reference to meeting varying student needs. The greatest departure in group instruction is represented by the critic teacher group in normal school education, under the leadership of Professor Thomas Alexander. A group of thirty students are permitted to register for a complete year's work under a single course number. These students are then permitted to choose as much or as little of any course in the University, including subject-matter materials, as the advisers deem desirable. This plan provides also for the placing of the students for a period of time during the regular school year in positions where they can do practice work under the supervision of Teachers College instructors.

Under the supervision of Professor Watson in psychology, and of Professor Kandel in comparative education, similar freedom has been given to a small group of advanced students in these fields.

Several departments have taken steps to introduce authentic

problems into their instructional plans. The school administration group has continued the use of school surveys as a means of obtaining problem material for the workers in this group, and opportunity has been taken to utilize these surveys for certain other professional groups, particularly for the secondary education and the physical education groups. Somewhat similar opportunities to work on actual school problems have been developed through the cooperation of certain teaching groups with nearby schools and other educational agencies. Examples of this are Professor Kefauver's work in high school administration in coöperation with the Young Junior High School of New Rochelle and the Hastings High School, Professor Fretwell's survey of extracurricular activities in the Horace Mann School, and the visitation of social centers by Miss Forsyth's classes in religious work.

The utilization of the Horace Mann School for demonstration purposes has been extended in certain directions. An element which is giving a great deal of promise is the work carried on by Professor Woodring during the past year in connection with the course in high school methods for Barnard and Columbia seniors. Each of the students in this course is assigned as a helping teacher to a specific class in his major field in the Horace Mann School, under the immediate direction of experienced teachers who are preparing to be high school supervisors or heads of departments. The supervisors-in-training are in turn supervised by their instructors. This plan is being extended to give participation to students preparing for high school principalships and to students in the normal school group who are preparing for the position of director-of-practice. The suggestion which this carries of utilizing our own facilities to a greater extent to provide authentic problem situations not only for teachers in training but for teachers college and college instructors and for public school and other educational workers is receiving careful study.

The problem of determining the content of the curriculum for each professional group has received almost universal attention this year. Considerable work has been done by the college administration group in the organization of the bibliography in that field and in the establishment of a bibliographical quarterly of which two numbers have been published.

The psychology group has introduced a plan by which a student will no longer be required to develop his professionalized training from a selection of a large variety of courses, but will select one of four major fields: school psychologist; instructor in university departments of education, teachers colleges and normal schools; psychological counselor, or clinical psychologist in education; and teacher or supervisor of special classes.

For the purpose of furthering investigations along the lines proposed in the series of staff conferences which were carried on under your leadership during the year, several committees of the Faculty of the School of Education were appointed. Mention has already been made of the effects of the work of the committees headed by Professors Briggs, Strayer, and Wilson. Professor Rugg's committee on the relative emphasis on teaching and research has brought out a number of important points which will guide in the obtaining of more adequate information on staff interests and activities. Professor Caldwell's committee on the utilization of new devices in education has developed a promising plan for the combining of a number of teaching groups in the utilization of laboratories equipped with mechanical devices which have been recently developed. Professor Counts' committee on the planning of the curriculum of the School of Education has proposed the organization of a permanent committee which, through frequent discussions of the new development in our civilization, would from time to time propose new lines of procedure and new points of development in the curriculum of the School to supplement the proposals of professors working in specialized fields and the insight of administrative officers.

Respectfully submitted,

Paul R. Mort, Director

SCHOOL OF PRACTICAL ARTS

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the Dean of Teachers College

SIR:

I submit herewith my annual report as Director of the School of Practical Arts for the academic year closing June 30, 1930.

The total registration of students in the School of Practical Arts from September, 1929, to June, 1930, was 2,169, an increase of 221 over the total of 1,948 for 1928–1929, in which there was an increase of 162 over the previous year.

Among the students of the year just closed there were 980 candidates for higher degrees and 1,189 students working toward the Bachelor of Science degree. The majority of the latter had graduated previously from normal schools and technical schools (art, music, nursing, etc.) which do not give standard Bachelor's degrees. All students were admitted on the basis of four or more years of educational experience in study or in teaching after graduation from high school.

In addition to the 2,169 regular students under the Faculty of Practical Arts, 184 students of University Extension, most of whom were teachers in service, were admitted to sections of technical courses for which their preparation was equivalent to that of matriculated students in the same courses. The total number of students taking regular credit courses was 2,353.

Cards of admission were granted to 444 persons, not classified as students, who attended extension special series of popular lectures in fine arts and household arts and lessons in physical training conducted by departments of the School in coöperation with the Institute of Arts and Sciences of Columbia University.

The departmental distribution of candidates for higher degrees in practical arts for the past five years is shown in the following table:

Department	1925- 1926	1926– 1927	1927- 1928	1928– 1929	1929– 1930
Fine Arts	89	114	121	172	150
Household Arts	182	222	221	227	229
Industrial Arts Education	17	17	27	15	19
Music Education	41	54	72	85	132
Nursing Education	36	39	45	44	91
Health Education	14	19	18	31	54
Physical Education	106	96	131	167	239
Practical Science	64	56	35	52	54
Unclassified and General .		13	3	7	12
Total	549	630	673	800	980

In October, February, and June, 1929–1930, the Bachelor of Science and Master of Arts degrees were conferred by the University on 739 candidates whose major interest was in practical arts. Of 277 who received the Bachelor's degree, 258 were women and 19 were men. The Master of Science degree was conferred on 2 men and 21 women, most of whom were students in practical science.

The number of Teachers College diplomas in practical arts conferred in 1929–1930 was 155, 66 to holders of Bachelor's degrees and 89 to holders of Master's degrees.

Probably the most significant event of the year in the School of Practical Arts was the approval by the University of a plan for accepting candidates for the degree of Doctor of Philosophy with major work in practical science. This division in Teachers College includes household bacteriology, physiological chemistry, household chemistry, household engineering, and nutrition as these are applicable to technical education in any field of practical arts. Heretofore, advanced students in Teachers College who wished to specialize in these fields were forced to become candidates for the Doctor's degree in education, with more or less remote application to practical science. This possible route to the degree was never satisfactory to science students, and many of the best ones

have transferred from Teachers College to other parts of this University or, very frequently, to other universities. This fact and a marked increase in the number of students desiring advanced work in practical science made necessary a new pathway to the Doctor's degree. This is provided by the new plan whereby a graduate student in Teachers College who wishes to specialize and undertake work in any field of practical science may become a candidate for the degree of Doctor of Philosophy under special conditions which have been set up by the University Joint Committee on Graduate Instruction. A detailed statement concerning the requirements has been published in the Announcement of Teachers College for 1930–1931.

The departmental distribution of all students in practical arts for the year 1929–1930 is shown in the following table:

Department	for 1	dents Higher grees ¹	Students for Bachelor's Degrees	Total Students in Departments
Fine Arts	150	(172)	163	313
Household Arts	229	(227)	158	387
Industrial Arts Education	19	(15)	26	45
Music Education	132	(85)	173	305
Nursing Education	91	(44)	470	561
Health Education	54	(31)	47	101
Physical Education	239	(167)	123	362
Practical Science	54	(52)	29	83
Unclassified and General	12	(7)		12
Total	980	(800)	1,189	2,169

¹Figures for 1928-1929 in parentheses.

For many years there has been research work under the direction of various members of the Faculty of Practical Arts in connection with the Institute of Educational Research. More and more, such research work has tended toward applied science rather than education, and it has therefore become illogical to classify it under educational research. This is especially true of many practical problems for the investigation of which financial assistance has been offered

by commercial firms. Such financial assistance last year amounted to more than forty thousand dollars.

The Trustees of Teachers College at their April meeting established the Institute of Practical Arts Research "for the encouragement, investigation, and experimentation in the various fields of Practical Arts." The administration of the Institute is vested in an administrative board, consisting of the Dean, the Provost, and the Director of the Institute. The staff of the Institute consists of the Director and research associates and assistants. The following appointments were made to fill the positions thus created: M. A. Bigelow, Director; Research Associates: Jean Broadhurst, Ph.D. (bacteriology); Walter H. Eddy, Ph.D. (physiological chemistry); Carleton J. Lynde, Ph.D. (household engineering); Mary S. Rose, Ph.D. (nutrition); Grace MacLeod, Ph.D. (nutrition); May B. Van Arsdale, B.S. (cookery).

The reorganization of practical arts research in the new Institute has appealed to several commercial firms and organizations interested in investigation of practical problems, and the research funds guaranteed for the next college year will make possible the appointment of fifteen to twenty research assistants, most of whom will devote part of their time to work leading toward the degree of Doctor of Philosophy.

The Trustees of Teachers College have voted the following promotions: Grace MacLeod, Ph.D., from Associate Professor to Professor of Nutrition; Charles J. Martin, B.S., from Associate in Fine Arts to Professor of Fine Arts; Clifford L. Brownell, Ph.D., from Assistant Professor to Associate Professor of Physical Education; Lillian H. Locke, A.M., from Instructor in Household Arts to Assistant Professor of Household Arts.

Leaves of absence have been granted to Professors Peter W. Dykema, Lillian A. Hudson, Carleton J. Lynde, Grace MacLeod, and Wilhelmina Spohr for the Spring Session of 1930–1931.

Respectfully submitted,

M. A. BIGELOW,

Director

COLLEGE OF PHARMACY

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

It is gratifying, on this, the last occasion on which I shall report to you as Dean, and at the close of the first year of the second century of the existence of our school, to be able to report so much of satisfaction with the present and of encouragement for the future.

The outstanding feature of this year's work has been the completion of our first experiment with a three-year course for the degree of Graduate in Pharmacy. We were slower in inaugurating this course than most other American schools of pharmacy, and the result has demonstrated the wisdom of that delay. As I have explained in previous reports, it has always been our aim to preserve harmony of view and unity of action among all the pharmaceutical organizations and interests in our state, believing that such harmony would justify any necessary delay in the advancement of official standards. As a result of the postponement of inaugurating the change from a two- to a three-year course, we secured united action among all the schools of the state and, at the same time, the general approval of state and local associations and of the State Education Department. Throughout the three years of this course, we have kept in mind the principle of greater thoroughness, rather than extension of curriculum. Restriction on advancement in classes was increased, with special reference to general scholarship. The result, at the close of the course, has been to set a new record in graduation percentage and in the intellectual character of the graduates. In this experience, the other schools of our state appear to have shared, and this new requirement has secured general

approval throughout the state. To so great an extent is this true, that a strong disposition is now manifest, in many directions, for another advance, to a minimum pharmacy course of four years, and again our school is advising against hasty action. With this further extension of the course assured, it would seem to be a wise procedure to allow the three-year course to become thoroughly established and to justify itself fully, before proceeding to the extensive changes in equipment and personnel that will be required for a farther extension. At the recent meeting of our State Pharmaceutical Association, there was a strong approval of the inauguration of the four-year course, but the time for doing so was wisely left to the judgment of the State Education Department, which always works in close harmony with the State Board of Pharmacy.

Important questions concerning preparation, curriculum, and degrees are involved in the proposed change, concerning which subjects there are wide differences of opinion among the faculties. These should be thoroughly discussed and agreed upon before the responsibility of taking action is assumed. One group believes that the extension should be in the direction of advanced instruction in professional work; another, that it should be in the line of better general scholarship. If the latter principle is adopted, the question will arise as to whether the pharmacy school is the best place for giving such general instruction, or whether it should be required as an entrance qualification. We may expect much discussion of these questions during the coming year.

The great fundamental difficulty in deciding these and related questions is found in the changing character of the professional work of the pharmacist. Instead of manufacturing his galenicals, as in times past, he now depends almost wholly on the manufacturer for their supply and, while having no part in their preparation, he, as the one who supplies them to the purchaser, becomes legally responsible for their quality. Instead of compounding prescriptions, which is theoretically the chief of his duties, he is compelled, more and more, to be a mere purveyor of ready-made mixtures and compounds, the composition and quality of which he must take for granted.

Thoroughly qualified, as his pharmacy course prepares him, to fill prescriptions with precision and care, he receives fewer and ever fewer prescriptions, chiefly for the reason that physicians are becoming less and less competent to write them, and fear to do so because of their recognition of this inability. If only the professional interests of the pharmacist were at stake, the matter would not be of such serious public interest, but this failure of the physician, in fundamental matters pertaining to materia medica, renders him more and more dependent upon the character and activities of the manufacturer, who now supplies him not only with his materials, but to a great extent with his information and ideas regarding therapeutics. The chain of events, as now largely existing, is that the manufacturer directs the physician's prescribing, and in doing so, proceeds on the basis of his own greatest commercial profit. The physician, theoretically, passes these instructions on to the pharmacist, who supplies the ready-made article, and becomes, in many cases, responsible to the patient for the results. With his legitimate professional occupation thus reduced, the pharmacist turns to merchandising and carries it into lines that are professionally degrading.

It is not difficult to see the direct bearing that these conditions have upon questions of curriculum and professional training. It will not do to turn them aside as matters which concern only the practicing pharmacist. Public welfare renders the services of the pharmacist indispensable, and it is not too much to say that pari passu with the reduction in the professional work of the pharmacist, the public welfare will suffer. The physician, the pharmacist, and the patient constitute a triumvirate, whose mutual interest must be considered as a unit, and it must be admitted that present tendencies are in the direction of the sacrifice of all three to the commercial interests of the manufacturers who, to a great extent, control the sources of professional information and also of authority. What can be done by pharmaceutical educators to meet this growing situation must be considered in connection with any preparation for modification of the pharmacy curriculum.

Of no less importance than the success of our three-year experiment has been that of the first experiment with our six-year course for the degree of Doctor of Pharmacy. The general principles governing this course, and the methods of instruction, have been modeled closely after those of the course leading to the degree of Doctor of Philosophy. The two years of graduate work are based fairly on the baccalaureate degree. All the work of the two years must be performed in residence, and the conditions are exacting. Our first graduate from this course, Dr. Margaret H. Kennedy, has been a most faithful disciple and has had in mind the setting of a worthy example for all those who are to follow.

Conditions in our faculty and student body can be reported as excellent. Our students have had a fine standard set for them by our recent graduates, and we shall insist on assisting them to maintain it. Our faculty is earnest, energetic, and harmonious. I take pleasure, in this connection, in acknowledging the valuable services of Professor Lieb, in meeting with and advising us. His presence in this faculty has not been that of a merely nominal representative of the University, but an active colleague, connecting our interests with those of medical teaching and practice.

In resigning my position as Dean, I note with satisfaction the element of security that is afforded by the succession of Professor Arny to that office. Always an earnest and active coadjutor, Professor Arny has found it specially necessary, during the past year, to assume much of the burden of the Dean's work, and he takes office with experience, as well as with natural fitness for the position.

It has seemed to me advisable, for a time, to retain control of my own department, avoiding too great a disarrangement in the Faculty at one time. In looking toward the inevitable impending change, I am happy in the knowledge that, in the person of Professor Ballard, our work will be consistently maintained and improved.

Once again, in conclusion, I must direct your attention to the increasing necessity for additional space for the most efficient performance of our work. Up to the present, this work has not suffered, although there has been some inconvenience, through crowding, to both faculty and students, but with the changes that are naturally to be expected as we progress, and especially in view of the anticipated early extension of the course, the need for more classrooms and for an additional lecture room will become urgent.

Respectfully submitted,

HENRY H. RUSBY,

Dean

June 30, 1930.

SUMMER SESSION

REPORT OF THE DIRECTOR FOR THE SUMMER SESSION OF 1930

To the President of the University

SIR:

As Director of the Summer Session I have the honor to submit the following report of the thirty-first Summer Session of the University which opened July 7 and closed August 15, 1930.

The report of the Registrar includes the statistical record of the session. (See pages 558–563.) Outstanding figures are: (1) The enrollment of 13,887 students as against 13,817 for the attendance of 1929; (2) the percentage of men and women, 30.8 and 69.2 respectively, showing a slight increase in the percentage of men which was 30.6 in 1929; (3) the wide territorial distribution with 9,545 students from outside of New York State—2,920 from the North Central Division (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin), and 310 students from foreign countries. Of the students in attendance 53.8 per cent had taken work at the University previously.

The noteworthy features of the figures just cited are, in the first place, a slight increase in enrollment, one-half of one per cent, or in numbers 70 over the session of 1929 (with summer sessions in the United States taken as a total, showing a decrease of 7.6 per cent from 1929); and second, a slight decrease in the number of foreign students.

Other interesting statistics of the Summer Session of 1930 include 766 instructors (477 men and 289 women), of which number 119 were assistants; in the Demonstration School there were 5 high school teachers and 18 elementary teachers. There was a total of 336 instructors from outside the University.

The distribution of the teaching staff by academic rank is as follows:

721	Vis	iting	Lo	cal	Total
Rank	Men	Women	Men	Women	
Dean	3	I			4
Full	48	ı	65	6	120
Associate	6	I	30	11	48
Assistant	6	2	40	23	71
Instructor	87	95	120	93	395
Special Lecturers in Courses .	9				9
Assistant	31	46	32	10	119
Total	190	146	287	143	766

An analysis of this table shows that in the Summer Session of 1930 there were 239 of professorial rank or 31.2 per cent of the total number of those giving instruction.

A total of 1,078 courses was offered. In addition to the regular courses there were approximately 125 lectures given. These are recorded in the Weekly Bulletins of the Summer Session.

The following exhibits were held: National Child Welfare, in University Hall throughout the session; the Book Exhibit in the Auxiliary Gymnasium throughout the session; and an exhibit of painting and sculpture by American artists. Under the direction of Walter Henry Hall, Emeritus Professor of Choral and Church Music, an orchestral and choral concert and a recital of sacred music were given. In addition to these concerts, the New York String Quartet gave two concerts, and an organ recital was given in the Chapel.

During the session Teachers College gave two orchestral and choral concerts by the All High School Orchestra and Teachers College Conducting Classes, a song recital, a violin recital, a piano recital, a violoncello recital, and six community song meetings.

The class in play production under Dr. Milton M. Smith gave six admirable performances.

Excursions were conducted in and about New York City with a total of 8,938 participants. The West Point excursion included 1,921 students, 535 visited the Washington Irving region, and 385 were taken to Atlantic City.

In the Summer Session of 1930 the Summer School for Women Workers in Industry, begun in 1927 by Barnard College, was continued. Fifty-one women were recruited for a seven-weeks' course and work was given in economics, science, English, and physical training. The work was even more successful than in the preceding year, and the students of former years form a nucleus of persons interested in the University as an aid to the education of industrial workers.

The appended table showing housing conditions in 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, and 1930, still indicates a marked difference in the dormitory rates for men and for women. The average charge for men in the dormitories is \$6.35 per week; in the Barnard dormitories for women \$10.05; in Johnson Hall for women \$9.17; in Seth Low Hall, Teachers College, \$6.61; in Grant Hall and Sarasota Hall, Teachers College, \$7.00; and in Whittier Hall, Teachers College, \$17.00 with meals.

MEN'S DORMITORIES

SUMMER SESSION

	1930	\$5.98	6.37			\$6.61		8.17 9.61 9.62 9.53 9.53 10.00 \$10.05		7 89.17	9 14		
	1929	\$5.95	6.37			\$6.61		\$10.00		\$9.17	5.76		
eeks'	1928	\$6.26	6.94			\$6.61		\$10.06		\$8.74	6.25	5	
Six W	1927	\$6.26	6.94			\$6.60		\$10.06		\$8.67	6.20	,	
Week on	1926	\$5.53	5.96			\$6.61		\$10.06		\$9.02	5.93		
Room Rent Per Week on Six Weeks' Basis Approximately	1925	\$5.66	6.11			\$5.85		\$10.18		\$8.20	6.90	2	
oom Re	1924	\$5.75	5.75			\$5.85				:	7.20	- 1	
Re	1923	\$6.00 \$6.00 \$5.41 \$5.75 6.00 6.00 5.41 5.75	5.41			\$7.12 \$7.17 \$5.85 14.33 14.33 14.50		8.19		:	7.17		
	1922	\$6.00	6.00		s	\$7.12		8.18		6.00	6.00		
	1021 1022 1023 1024 1025 1026 1927 1028 1020 1030 1921	\$6.00			WOMEN'S DORMITORIES			7.50		6.00	6.00		
	1930	286	255	1294	RMIT	326	793	232	340	363	: :	363	1496
	1929	292	252	889 1015 1227 1284 1297 1294	s DO	335	833	238	348	355	24	38	1200 1362 1359 1377 1828 1569 1669 1537 1569 1496
	1928		267	1284	fEN,	335	802	236	346	345	33	389	1537
ents	1927	292	277 401	1227	WO	382	841	239	352	354	109	4	
Stud	1926	300	131	rors		307	783	235	348	353	. 52	4	1569
Number of Students Accommodated	1925	302	283			363	855	119	228	358	183	1	1828
Num Ac	1924	305		888		364	827		117	: :	138	433	1377
	1923	317	296	927		351	826	116	116	: :	142	417	1359
	1922	1	115	737		292	756	100	100	278	102		1362
	Igel	307	3 : : :	677		270	732	102	102	278	80 :	366	1200
		Hartley	Tompkins	Total Men		**Seth Low		Hewitt		Johnson	Tompkins		Total Women

MEN, WOMEN, COUPLES

	_		-	-	-	-	-	-	-	-	-	-	-							
**Bancroft	186	239	232	129	123	120	85	13	140	. 48	64. :	7.70	20.12	\$6.86	\$6.86	\$7.00	\$7.00	186 239 232 129 123 120 85 113 140 148 \$7.70 \$9.17 \$6.86 \$6.86 \$7.00 \$7.00 \$7.00 \$7.00 \$7.00	\$7.00	\$7.00
Grant		: :		: :	: :	: :		27	27	30		: :		::	: :	: :		7.00	7.00	7.00
Total Men and Women	186	239	186 239 232 129 123 120 85 171 195 206	129	123	120	85 1	71	1, 561	902										
Total Men and Women in Dormitories.	2063	2338	2518	2394	840 2	704 25	81 29	192 30	190											

OFF-CAMPUS ROOMS

*The rate given here includes room and board. **Six weeks' rental at this figure entitles to eight weeks' occupancy.

The Summer Session of Columbia seems to me to gain its significance chiefly for four reasons: its range of subjects, its superior staff, its location, and the wide distribution of its students. During the summer Columbia is more truly a national institution than any other university at any time of the year. It is also truly a university for all faculties contribute work of the same grade as that offered in the winter. Because of its location, with the manifest advantages which New York City can offer to adult students, because of the wide variety of subjects offered, and because its students come from every state in the Union and forty-one foreign countries the Summer Session may justly be said to exert an influence even to the ends of the earth.

Respectfully submitted,

JOHN J. Coss,

Director

September 26, 1930

UNIVERSITY EXTENSION

REPORT OF THE DIRECTOR FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

As Director of University Extension I have the honor to present herewith the report for the academic year ending

June 30, 1930.

The organization of University Extension at Columbia University dates from July 1, 1910. We are therefore celebrating the twentieth anniversary of University Extension, or Extension Teaching as it was then termed, at the beginning of the academic year 1930-1931. It is therefore appropriate to recall certain facts in the history of University Extension and to make a comparison with similar facts of the present year. In 1910-1911, the budget of University Extension amounted to \$42,500; for the year 1930-1931, the budget of University Extension is \$1,722,175. The students in the first year numbered 922 resident and 390 extramural; resident students in 1929-1930 numbered 14,595, extramural 2,500, special 450, and Home Study 10,300. The bulletin of information for the year ending June 30, 1911, was a document of 26 pages; the bulletin for the year ending June 30, 1931, is a document of 210 pages. These facts in themselves are of little importance. They are of great significance, however, when they indicate that during the past twenty years, Columbia University has been offering to New York City and to the large and growing population living within reach of Morningside Heights, ever increasing advantages in the way of adult education which are well worthy of special recognition.

The record of the past twenty years is the story of the development of University Extension through the progressive organization of various phases of its work. Thus, at the beginning, it was found that the situation and the demand

called for provision for the unclassified students, described by Dean Woodbridge as "the youngsters who need instruction, the men and women of society, those busied with affairs, the writer, the publicist, the statesman, the men of the professions, the inquisitive wanderers who may find in the University the best which its organized effort in pursuit of the best can afford." The opportunity to meet this demand, as the Dean rightly states, is the opportunity of a university situated in the nation's metropolis. After the plan for university classes had been arranged and undertaken we next turned to the lyceum or popular lecture system and organized in 1913 the Institute of Arts and Sciences; then it inevitably followed that we should think of the student who could not attend classes or lectures, and Home Study was organized in 1919. All this was possible because of the flexible character of the statutory organization of University Extension. Beyond this, it was possible to aid in the building up of other parts of the University. I refer particularly to the School of Business, the School of Dentistry, and graduate courses in medicine including the initial steps in the organization of the School of Tropical Medicine in Porto Rico. In like manner University Extension furnished the two years of collegiate courses which later became the Seth Low Junior College. Many departmental societies now recognized as part of the University activities trace their lineage to University Extension. I refer to the Writers Club, the Morningside Players, the French, Spanish, and Italian Institutes.

In presenting this report I shall therefore follow the outline organization of University Extension as it exists today.

As the numbers in University Classes of University Extension have increased so greatly and so rapidly, it has been found necessary to elaborate a plan of administration which would enable our advisers to keep in close touch with the students who by reason of age, or ignorance of academic custom, look for advice as to their educational needs. This is particularly true during the registration periods in September and January. For a period of three weeks at least, the advisers are busy on a twelve-hour schedule which frequently

prolongs itself to thirteen hours or even more. This does not mean, however, that there is an absence of these demands during the rest of the academic year. By careful planning the peak of the registration load can be distributed, especially by a system of permits issued to students who are directed to come for advice when the advisers are at greater leisure than at registration periods. The importance of this can hardly be overestimated, especially for students who look for academic credit.

In the Winter Session of the year just passed our women students authorized for academic credit were: certificate students 183, pre-professional students 57, candidates expecting to become University Undergraduates 20, and about 50 candidates completing with us the requirements for entrance to Teachers College.

Miss Hopkins, Assistant to the Director assigned to women students, writes as follows:

I cannot contemplate these large groups of serious and ambitious students without remembering your reference of last year to a "University College of the broadest possible type" as already existing in University Classes. Nor can I think of these students without regret that they should be denied the satisfaction and dignity of matriculation through this de facto University College. I confidently hope that the formal establishment of such a college as an outgrowth of our department of adult education may not long be delayed.

Miss Hopkins calls attention to the very happy success of her associate in administration work, Mrs. Milton J. Davies, in creating and building up the beginnings of a social life in University Extension. This is a most difficult and important matter. Our main purpose is to keep before the students the fact that they are granted opportunities of higher education at unusual times, and adapted to those who are engaged in remunerative employment. This, they are told, is inconsistent with the numerous extracurricular activities open to students who can give their entire time to academic interests. Nevertheless, we are desirous of making these students feel that they are part of the student body—and beyond this we are responsible in some degree for their social

well-being. As a method of caring for this, Mrs. Davies aided in the formation of an Association of University Classes. I note that in the Constitution it is stated that "the object shall be to develop a social relationship and stimulate a cultural interest among the students of University Extension." Three evening receptions and two afternoon teas were held during the year. These were attended by many students in University Classes and members of the staff, and were marked by a friendly and cordial spirit.

In the absence of Professor Northcott, who has enjoyed academic leave during the Spring Session, Mr. Hoover has had charge of registration and has served as adviser to men students. He has been assisted by Mr. Williams in this difficult and wearing task. These gentlemen report greater efficiency in caring for the men students and in examining and filing of records of those who are intending to use credits obtained in University Classes for future academic recognition. The skillful conduct of our great offices of admission and registration is largely responsible for the improved conditions in our own office.

I shall now refer to the work of certain departments of study which make special reports to the Director. Professor Krout in the Department of History reports the most successful year since he became departmental representative. This success meant students of higher scholastic ability and increase in the number of those electing more advanced courses. The new graduate course in the history of science was offered simply in one session but proved so valuable that it was extended to cover the entire academic year.

It is important to note that many of the instructors in University Classes are engaged in productive scholarship. Professor Krout published Annals of American Sport as Volume XV in "Pageant of America" for Yale University Press. Professor G. T. Robinson completed the first volume of his study of the Peasant Revolution in Russia. Mr. Wuorinen completed a study in Finland and now has ready for publication The Prohibition Experiment in Finland. D. R. McBride and George C. Groce, Jr. have aided in preparing

historical tables forming part of the mural decorations in the State Capitol at Harrisburg.

For the coming year the Departments of History and Public Law have established an Integration Seminar in the endeavor to guide with care the work of students whose major academic interest lies in the field of the social sciences. It is expected that students in University Classes will gain a clearer understanding of the historical background of insistent problems of today as well as to realize the intimate relation between history, government, economics, and sociology in the approach to all important questions.

The new quarters in Schermerhorn Hall have provided, for the Department of Agriculture and Landscape Architecture, a large drafting room and satisfactory equipment. A potting house has been added to the greenhouse and in this way sections of twenty-five students each can be accommodated. Professor Hugh Findlay reports for landscape architecture, among other activities, field trips to the Dupont Gardens at Wilmington, to the estate of Mr. Harold Pratt on Long Island, and to the home of Mr. Norman Ream at Greenwich, Connecticut. Special lectures were given before these classes by Dr. A. B. Stout, of the Bronx Botanical Gardens, on lilies; by Mrs. Auchincloss on Spanish gardens, and by Mrs. Perry Williams describing her trip through England during the summer. Professor Findlay has delivered forty-nine lectures before garden clubs and horticultural societies in various states and has written important articles along horticultural lines for Arts and Decoration.

The Department of Government reports increased registration and unusual interest in courses in international relations. This department joins with that of history in furnishing for students with a major in social sciences in University Classes an Integration Seminar referred to above with the purpose of giving personal guidance and of impressing upon these students the interrelationship of the material presented in the social sciences.

Considerable study has been given in the closing months of the academic year to the development of the work in

architecture which we are presenting in University Classes and the extension of our courses into other fields of fine arts. We need more adequate quarters for our atelier, and the prospect of conducting courses in fine arts in a broader way is most alluring. This problem will be given further study in the course of the year 1930–1931.

In the March number (1930) of the Jeweler's Circular a description is given of the course in gems and precious stones offered by the Department of Geology and Mineralogy for University Extension students. The course, originated by the late Professor Alfred J. Moses and now conducted by Professor Paul F. Kerr, was designed for those engaged in the jewelry trade or for other specialists desiring to improve their knowledge of gems. The University possesses a very complete collection of gems and precious stones and elaborate apparatus for instruction in rapid and non-injurious identification.

The courses in English retain the record of the largest registration in University Classes; for the Winter Session 3,946, and for the Spring Session 3,227. In Brooklyn the registration numbered in the Winter Session 221, in the Spring Session 286; in extramural centers, 193 in the Winter Session and 87 in the Spring Session. The total, therefore, stands at 7,960 registrations in the academic year, truly a great record for a single subject. I can report a very active and fruitful year in this department. We found an unusually vigorous growth in the classes in elocution. Preparatory courses are serving the purpose of encouraging those who have not had training in English of the secondary school period. We offer a strikingly varied and rich program in the strictly academic work, e. g., the Anglo-Saxon language and literature, advanced English grammar for teachers and writers, Chaucer and the Middle Ages. The courses in photoplay under Mrs. Frances Taylor Patterson have now been made part of the work in creative writing. Because of the importance of moving pictures and the vitaphone these courses are significant. The course in verse writing given by Mr. Joseph Auslander, newly appointed to our staff, has attracted favorable comment and a large registration.

Our work in the drama has always been interesting and valuable, but this year has witnessed unusual progress. Mr. Milton Smith has been added to the staff offering courses in play production and stagecraft. He has also acted as production manager for the Morningside Players. organization, which is under the direction of Professor Hatcher Hughes, produced four plays written by members of the classes in dramatic composition. The Morningside Players entered the Little Theater Tournament with The New Freedom by Marjorie Bartholomew Paradis and won the Samuel French prize of one thousand dollars and the silver cup presented by the Theater Arts Monthly. The tournament was held at the Waldorf Theater. The Laboratory Players, so named because the plays and the staging of them are worked out in rehearsal courses, produced this year under the direction of Mrs. Estelle H. Davis, four early American plays and Shakespeare's King Lear. All met with great success and the approval of the critics.

The Writers Club, which has been in existence over seven years, has been under the supervision of Professor Donald L. Clark, executive secretary. It is in a flourishing condition with 563 members. Professor Dorothy Scarborough prepared a most attractive program with such writers as Stephen Benet, Oliver La Farge, and Will Irwin as speakers. The Writers Club has for seven years published an annual of original work of the students in University Classes and Home Study. The book, entitled *Copy*, was dedicated this year to the Director of University Extension.

MS., a magazine for students and others interested in writing, is published monthly during the academic year by Home Study with Dr. Ernest Brennecke as editor and Miss Lorna R. F. Birtwell as managing editor. There are now three thousand subscribers.

One of the Guggenheim Fellowships for the coming year has been awarded to Professor Helen Hull, a member of our staff. Mr. Kenneth Eves has been awarded the Cutting Traveling Fellowship in English. The Research Council of Humanities has given funds so that Professor Dorothy Scarborough may continue her valuable work on the folk

songs of the negro. Professor Mabel L. Robinson and her students in juvenile story writing have published an anthology, *Blue Ribbon Stories*, containing a selection of the best juvenile fiction published in the United States during the year. Dr. Robinson has been elected to membership in the Juvenile Literary Guild.

In a letter written by yourself, Mr. President, under date of March 3, 1930, you called attention in very clear terms to the necessity of practical training of modern language students in the use of the languages so that they might engage in simple conversation. This letter has been considered by the members of our staff who are in charge of modern language instruction. The result has been an endeavor to accomplish what you point out as so essential. Thus in Spanish, in an advanced course in composition and conversation the students discuss topics of the day, carry on debates on assigned and impromptu subjects, and play games calling for impromptu remarks and discussion-all in Spanish. Similar efforts have been put forth in French through invitations to students to afternoon tea at the Maison Française and attendance on the meetings of the Institute des Etudes Françaises. In the classes, oral work is stressed from the beginning and oral compositions are assigned. In like manner, in Italian, special study is being given to the problem as set forth in your letter. A new curriculum is in preparation in which informative Italian books in geography, history, and art are used. By gradual steps Italian is made to take the place of English in the classroom and theoretical grammar work is eliminated in favor of composition and conversation in the language with appropriate readings. In all the University Classes in Romance languages we find the same extraordinary enthusiasm as shown in the interest of the students through attainment of the use of the language aided by most interesting and delightful social events at which the foreign language alone is used.

When University Extension was planned as a part of the service of the University emphasis was placed upon the courses which could be offered in towns and centers at a convenient distance from Morningside Heights. Courses of this character have been given for several years in spasmodic fashion. We have felt that such courses were legitimate extension work and deserved special consideration and steady development. Hence for the past three years we have relied upon a special assistant, Joseph M. Murphy, to regulate and develop this so-called extramural instruction. During the past year courses have been conducted in nine communities in three states. In New York: in the Bronx, phonetics and pronunciation; at Elmhurst, elementary elocution; in the rooms of the International Telephone and Telegraph Company, persuasive speaking; at the West Side Branch Young Men's Christian Association, an educational approach to Y.M.C.A. work; at Patchogue, New York, development of the modern world. In Connecticut: at Bridgeport, mental hygiene; at Greenwich, the modern English novel and mental hygiene; at Stamford, comparative literature, modern English and American fiction, and persuasive speaking. In New Jersey: at Jersey City, mental hygiene; at Trenton, mental hygiene; at Newark, we have offered eleven courses in the rooms of the Young Women's Christian Association. It will be noticed that several courses have been offered in psychology under the title mental hygiene, given by outstanding people in this field: Dr. James S. Plant, Director of the Essex County Juvenile Clinic; Dr. James Q. Holsopple, Chief Clinical Psychologist, New Jersey State Hospital at Trenton; Dr. James W. Howard; and Mrs. Marion Miller, Associate Director, Child Study Association of America. Extramural work is gradually establishing itself as a branch of adult education. This may well be allied with Home Study and coöperation will be mutually helpful.

Mr. Murphy is now investigating visual education as a possible development of University Extension at Columbia following in this the experience of other institutions. Here again coöperation with Home Study and its staff of supervisors is desirable.

For a number of years Columbia University through University Extension has acted as the educational adviser

of the local chapter of the American Institute of Banking. All the instructors are appointed by the Trustees of the University and are on its staff, thus insuring a very high type of instructing force. Beyond this, an officer of the University is in direct charge of the educational work. The success of of these courses of the New York Chapter is recognized in all parts of the country. This year a decided change has been made in the course of study in each of the five standard curricula which has been lengthened to cover a four-year period in place of three years as hitherto. The object is to give the students a better background and training by way of preparation for the increasing complexity and broader scope of the banking functions in New York City.

The Associate Director in charge of Home Study reports two achievements for the year, one educational and the other financial. The first has brought the centralization of the educational activities, the very core of the purpose and work of Home Study. Up to the present year the educational organization consisted of a series of unrelated subject-sections, each responsible to its University department of instruction. This led to a lack of coherence which interfered with efficiency. Although close association with the related subject department of the University was vital, yet the peculiar character of Home Study demanded similarity of approach and proced-As a result of careful study a general educational supervisor was appointed who reviewed other educational processes and made modifications which relieved instructors and assisted the students and brought into operation a simplified system which could be applied to each subject of instruction. We are all familiar with the depressing economic conditions throughout the country. This has naturally affected the finances of Home Study. It is our purpose to give the best educational service within our power and to keep the expense for the individual student as low as possible. To do this and not prove a burden financially to the University, is the difficult problem before us. A change in general economic conditions renders the problem more difficult. Therefore, the second achievement in Home Study to which I refer is

the closing of the year with a margin of income over expenditures. The solution of the financial problem rests in the definite purpose to meet the educational demand which is the real purpose of our endeavor. Hence, it is continually necessary to make increased provision for additions to the subjects of study. In this way, the expenditure of money gives the educational service called for and adds to the income for future progressive steps.

Home Study, in particular, can aid greatly by organizing and conducting special courses for industrial and business concerns. Important corporations such as banks and public utility organizations are now becoming convinced that they should turn to educational institutions of standing for a program in education for their employees which they find so essential to their efficient service. Recently Home Study has conducted a course in manufactured gas for which it has received warm commendation. This is simply one instance of the possible educational service which may be rendered by University Extension, particularly Home Study, for these important business organizations.

I desire to record at this point the gratifying ruling made by the New York State Department of Education that any student holding a certificate of Home Study of Columbia University may take Regents examinations without other credentials.

As a further step in improving the organization of University Extension, it is our intention to bring the so-called extramural courses into close coöperation with Home Study. Our immediate purpose is the development of club study which offers special opportunity for coöperative service between these branches of University Extension.

A study of the number of lessons recorded by Home Study for the year 1927–1928 showed that the turnover was more than 135,000; for 1928–1929, 163,000, an increase of nearly 20 per cent; and for the year 1929–1930, 216,000 an increase of about 33 per cent over the preceding year. As the registration in 1929–1930 was about 8 per cent greater than in 1928–1929, the figures of the lesson turnover indicate the increase

in educational efficiency of the various departments for the academic year just closing. Again, more than 26 per cent of our students are graduates of high schools and in our total registration there are about five hundred who hold degrees beyond the baccalaureate, and nearly seven hundred have professional degrees. Of our students last year 57 per cent were men and 43 per cent were women. The average age is above the middle thirties.

As to occupations, the largest number of students are in business; the next group is that of housewives. In the past year, our registration included 876 individual workers in industry. We might mention that we enrolled 263 accountants, 14 actors or actresses; 183 lawyers, 76 musicians, 27 pharmacists, 379 physicians, and 555 teachers. There were 51 students in agriculture, 7 firemen, and 20 policemen. From the United States Navy and Merchant Marine there were 37 students and from the Army, 27. Other interesting classifications are 117 writers, 107 religious workers, 529 registered nurses, 79 social workers, 29 statisticians.

The great body of our students came from the Atlantic seaboard, particularly the North Atlantic Division. Foreign students, scattered over the entire world, numbered 118. Every continent was represented except Africa; every state had at least one individual student. English, as usual, was the popular subject with a registration of 3,430, against 3,138 last year; business courses came next with 2,520 against 2,011 in 1928–1929. In the social sciences, we record 1,574 against 1,513 in the preceding year, and in the high school branch, 1,081 against 1,086. Library service increased from 33 to 105 this year.

We are now preparing courses in foremanship, real estate, typography, salesmanship, trust operation, interior decoration, stenography, machine design, advanced business or commercial law, corporation finance, physiology, public health, critical writing, and a series in art.

As I close the report on Home Study, I must refer to the loss to the University occasioned by the resignation of Associate Director Levering Tyson. Entering upon the educational

work of Home Study at its very inception, he has built up a great structure of public service in the University. He has made himself an expert in the field of adult education and now turns to an entirely new branch of educational development in which he is again to be a pioneer fully qualified by reason of his ability, devotion, and past experience.

As I take up the report of the Institute of Arts and Sciences, it is with great regret that I refer to the resignation of Mr. George V. Denny, Jr., who has been the Associate Director of University Extension in charge of the Institute for the past two years. Although a young man, Mr. Denny came to us trained in the work of university extension and also with experience obtained in a prominent lecture bureau in New York City. Mr. Denny has been called to an important position in the League for Political Education where he feels that he has larger opportunities for developing the work in which he is interested.

Mr. Denny is succeeded by Russell R. Potter, Ph.D., who is a graduate of Denver University, obtaining the degrees of Bachelor of Arts and Master of Arts. He received the degree of Doctor of Philosophy from the University of North Carolina in January, 1923, where subsequently becoming a member of the staff he reached the grade of Associate Professor of English and was the Assistant to the Dean of the Graduate School.

During the past year, the program of the Institute has reached a high educational standard which has not interfered with its popularity inasmuch as attendance has increased at all meetings and events under its auspices. As an addition to the program it has been possible to develop several new short morning and afternoon classes in history, literature, poetry, drama, and psychology. We have enjoyed the usual coöperation with other University departments in presenting many distinguished scholars and lecturers each in his special field. The total attendance at all lectures and events of the Institute was 131,531. Disregarding the attendance at short courses and coöperative lectures, the total attendance was 108,285. The average attendance was 623 as compared with 552 of last year.

Among the outstanding personalities appearing on the program were: President Nicholas Murray Butler, Andre Siegfried, Hugh Walpole, Mary Agnes Hamilton, S. Parkes Cadman, John Erskine, Archibald Henderson, Abbe Ernest Dimnet, Harlow Shapley, Lorado Taft, Norman Thomas, Stephen S. Wise, S. K. Ratcliffe, Arthur Guiterman, Alfred Adler, E. H. Sothern, Ruth Draper, Angna Enters, Elly Ney, Harald Kreutzberg, and Yvonne Georgi. The Oxford-Columbia debate was included in the regular program as were Columbia debates with the New Zealand team, Harvard, and Smith College.

The first Davies Memorial Lecture was given this year by Professor John Dewey on "Criticism and Construction." These lectures are provided by the income of a fund raised by members of the Institute in memory of Mr. Milton J. Davies who was the first Associate Director in charge of the Institute.

The concert series included the English Singers, Lawrence Tibbett, the Philadelphia Simfonietta, Elisabeth Rethberg, Andres Segovia, and Albert Spalding.

Another special event under the Institute was the appearance of Sir Philip Ben Greet and his all-English company in *Everyman* and *Much Ado About Nothing*. This was Sir Philip's first appearance in America after an absence of fifteen years.

The Institute coöperated with the University in its celebration of the 175th Anniversary of the founding of King's College and presented a series of seventeen lectures on "A Quarter-Century of Progress." The speakers were prominent members of the staff of the University.

In coöperation with the Department of English and Comparative Literature, Dr. Samuel Tannenbaum gave a series of six lectures on "The Handwriting of Shakespeare." Other coöperative lectures included those by Wolf Von Dewall, Nicholae Iorga, Robert S. Conway, Charles Singer, Charles T. Seltman, Enrico Bompiani, Marcel Bouteron, Henri De Siegler, and Sergei Eisenstein.

The following short courses were given by the Institute:

Dr. Richard Burton, "The Best Current Books," seven lectures; "The Best Current Plays," seven lectures; "The Best Current Books and Plays," seven lectures; Professor Harry M. Ayres, "History of Literature," seven lectures; Professor Hatcher Hughes, "The Spirit of the Modern World as Expressed in Drama," seven lectures; Mr. Edward Davison, "How to Enjoy Poetry," four lectures; Dr. Alfred Adler, "Individual Psychology," fourteen lectures; "Selected Personal Problems," seven lectures; Professor Dixon Ryan Fox, "Chronicles of America," seven lectures; Professor John H. H. Lyon, "The Art of Shakespeare," seven lectures. The short courses offered by Dr. Alfred Adler for the members, and the series of seven evening lectures open to the public, were provided by an anonymous donor. Dr. Adler's lectures were distinctly successful and his contribution to the educational work of the Institute was greatly appreciated.

The Columbia University Chorus, under the direction of Professor Walter Henry Hall, gave two concerts during the past season; the first was a recital of church music in St. Paul's Chapel; the second was a concert at Carnegie Hall, the program of which included scenes from the "Saga of King Olaf." The criticisms of the work of the Chorus in the press were most favorable.

During the past year on Saturday mornings a complete schedule of events for children was arranged and proved most gratifying. The program was offered by Clare Tree Major and her company, and Sue Hastings' Marionettes. Dorothy Gordon, John Mulholland, and Charles Bowman Hutchins also appeared on this program for children.

The Institute Magazine, which made its initial appearance last season, continues to be self-supporting and materially aids in the general work of the Institute. It was edited jointly by George V. Denny, Jr. and Milton Smith, with Richard Burton, Edward Davison, Hatcher Hughes, and Anne Fielding as Associate Editors.

Through the generosity of an anonymous donor, amplifiers were installed in McMillin Theater. This addition to its equipment was very much needed. The Theater actually

contains 1,270 seats but from three hundred to four hundred are unsatisfactory for all events and are useless for illustrated lectures, plays, and recitals. In the past season there were fourteen events when the attendance was over twelve hundred. In the previous year they numbered nine and for the year preceding, two. For six of the Institute Concert Series, it was necessary to sell standing room, and for four, stage seats were required.

In preparing plans for the coming year, 1930-1931, we have added the following University Classes:

Architecture: Plan reading; elements of rendering; building superintendence; the law of building contracts and mechanic liens; architect's relation to the promotion and financing of income-producing structures.

Business: Phenomena of the security markets; industrial factors determining security values; accident and health insurance; advanced retail merchandising; commercial research; commercial aviation; practical problems of trade unionism.

English and literature: Problems of editing and marketing; the Romantic Movement.

Government: Integration Seminar in government and history; the process of government in the United States; problems of public policy in the United States; evolving political institutions of the Far East; American political history from the Civil War to 1901.

Languages: Elementary reading course in Spanish; life and customs in Japan; vocabulary in Spanish; history of Italian literature; contemporary Chinese literature.

Law: New Jersey pleading and practice; aviation law.

Library service: History of book making; modern book making; problems of the elementary and junior high school librarian in New York City.

Philosophy: Logic; ethics; contemporary philosophy.

Psychology: Problems of racial psychology; mental factors in social maladjustment; social factors in personality.

Science: Fuel technology I—solid and gaseous fuels; fuel technology II petroleum; principles of electrical communication; mineral economics; intermediate physics.

As I have pointed out in other reports, University Extension at Columbia in its earliest days assumed the form of established classes given in the late hours of the day for the benefit of the part-time student. This was clearly the special form of extended university opportunities needed at Columbia University. The classes have grown with extraordinary

rapidity. Their outstanding characteristic has been insistence by the Administrative Board that the standing of the courses should be identical with that of courses offered in the various schools of the University. Such courses therefore assumed full academic standing and regularity. They were open as individual courses and not as part of an established curriculum to qualified students without entrance examinations. We have always held that credit toward academic recognition was a secondary consideration in University Extension, although it might be granted when the academic requirements had been met. The result of this plan is seen in the steady progress toward an established school of the University organized for the part-time student but possessing all the characteristics of other more formal and established parts of the University system. It is my purpose as Director to bring this entire question before the Administrative Board of University Extension and request the appointment of a committee to consider the form which this development of University Classes should take and to bring the results of their study before the University Council for appropriate action.

Another problem, the solution of which is becoming more insistent every day, is the proper housing of Home Study. This part of University Extension is now using two houses built for private families, as well as the loft in the building of the School of Business and a room in University Hall. The time is coming when the School of Business will need the rooms in the building of that school now occupied by University Extension. All this points to the need of an office building which will supply necessary offices for the entire staff of University Extension.

These are the achievements in University Classes, of the Institute of Arts and Sciences, of Home Study, and of our extramural division, in all of which we can report most satisfactory progress.

Respectfully submitted,

James C. Egbert,

Director

SETH LOW JUNIOR COLLEGE

REPORT OF THE ACTING DIRECTOR FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

As Acting Director of Seth Low Junior College, I have the honor to present the following report for the academic year ending June 30, 1930.

The developments of this year enable Seth Low Junior College to offer to the metropolitan area and, particularly, to Brooklyn and Queens, a liberal arts program of three years, whereby students may prepare for admission to the various professional schools, and, as University Undergraduates, may attain the Bachelor of Science degree of Columbia University. Encouraging progress has been made in matters pertaining to the College in general, the curriculum, and the activities and personnel of the various departments.

The enrollment was strengthened by a modest increase in the number and a substantial improvement in the quality of the students. The number of students registered in the Winter Session was 330 as compared to 308 the preceding year, and 367 in the Spring Session as compared to 341. The total registration for 1929–1930 was 383 as compared to 385 for the preceding year. The slightly lower total registration, in spite of the increased registration both semesters, indicates that the student body was more stable. The high school records and the results of the Thorndike Intelligence Test indicate that the freshman class of 1929 was superior in quality to that of 1928.

During the year the number of full-time instructors has been increased and for the coming year all officers of instruction have been placed upon University status.

When Seth Low Junior College was organized, the students were given an opportunity to obtain the Bachelor of Science

degree by becoming University Undergraduates in their third year. A grade of B in one half of the first two years of work was required for matriculation for the degree. In view of the fact that the students of Seth Low Junior College were admitted on identically the same basis as students of Columbia College and the standards of grading were similar to those of Columbia College, the question arose as to why they should be required to make a grade of B in one half of their work before they could become authorized juniors while the same provision did not apply to students of Columbia College. This problem was carefully considered by the Administrative Board and the Committee of the University Council on University Undergraduate Men and it was decided that some qualitative standard of matriculation for the degree of Bachelor of Science was desirable but that the standard prevailing in Seth Low Junior College was somewhat too rigorous. The requirement for matriculation for the degree was therefore changed from fifty per cent B in the first two years of work to twenty per cent. This makes it possible for every capable and serious student to obtain the Bachelor of Science degree.

Seth Low Junior College was established as a two-year college but well-qualified students who desired the third and fourth years might take these years at Morningside Heights. It was found, however, that many students desired third year courses in Seth Low Junior College although it was difficult for them to obtain a full third year program. Several students, therefore, took a part of their work in Seth Low Junior College and the remainder at Morningside Heights. This resulted in a break in their associations with fellow students, instructors, and the college life offered at Seth Low Junior College, and tended to disintegrate the morale of the College. Uncertainty also arose as to the disciplinary and academic jurisdiction of third and fourth year students. This matter was handled satisfactorily but the machinery was complicated.

A proposal was made to the Administrative Board that they recommend to the Committee of the University Council on University Undergraduate Men that they permit students of Seth Low Junior College who had completed two full years of liberal arts work with records satisfactory to the Office of Admissions, to continue their third year in Seth Low Junior College, with the understanding that such third year students would be matriculated for the Bachelor of Science degree in General Studies. This proposal was acted upon favorably and is considered the outstanding achievement of the year. Students may now continue their courses for the third year and consider themselves third year men in the College.

The integrating effects of this action have already been felt. In the coming year third year men will automatically become members of the Seth Low Students Association and will be leaders in the athletic and non-athletic activities of the College. The third year courses make it possible for them to continue their contacts with fellow students, advisers, and instructors, and to complete the three years that they need for the exercise of professional option, in classes particularly designed and administered to meet their needs.

The curriculum very readily lent itself to the formal adoption of the three-year program. During the year the following advanced courses were offered for the first time: Advanced English composition, labor problems, trust problems, international relations and world politics, modern democracy, analytic geometry, calculus, psychology of personality, abnormal psychology, community organization, and advanced comparative anatomy. In addition to these new courses vertebrate embryology and histological technique were strengthened by an increase in the amount of laboratory and lecture work required and a corresponding increase in the credit given. The first two years of the curriculum were improved by the introduction of *Contemporary Civilization A* and courses in health and physical education.

Mr. Thomas C. Blaisdell, Jr., was selected to take charge of the organization and introduction of *Contemporary Civilization A*. Under his efficient leadership the staff and course were organized and administered throughout the year. The outstanding principle involved in the administration of *Contemporary Civilization A* has been the close coöperation with the Columbia College staff. The same syllabus and

readings have been adopted for the work. The weekly meetings of the Columbia College staff have been attended by the Seth Low staff. The same examinations have been used by both colleges and the Seth Low staff has coöperated in formulating them. The custom in Columbia College of semiannual meetings of the instruction staff with student representatives of the various sections has been adopted in order that the staff may keep in close touch with student opinion regarding the work. The results of these measures have been the development of strong staff morale as well as a splendid spirit among the students in regard to the course.

For the coming year it is planned to expand the work of the College by adding *Contemporary Civilization B* which is a continuation of *Contemporary Civilization A* emphasizing contemporary political and economic problems. It is to be required of all sophomores. The same close relationship with the staff of Columbia College enjoyed during the first year will be continued.

The Department of Physical Education of Columbia University appointed Mr. Glenn W. Howard to take charge of the work in health and physical education. Three assistants were appointed to give instruction. Through the assistance of the Plymouth Institute, facilities were obtained. The Plymouth Institute, located on the corner of Orange and Hicks Streets, is about ten minutes' walk from the College. The building offers a gymnasium court with a running track around a balcony, a small room in the basement for individual activities, lockers, dressing rooms, and showers. A small playfield, approximately 40 x 70 feet, adjoining the gymnasium has been utilized for outdoor activities.

A program consisting of recreational and developmental activities such as running, jumping, climbing, and apparatus, has been conducted. Instruction in ten games has been given and a restricted exercise program offered to those students with defects that made it impossible for them to participate in the regular class work. All the work has been conducted in regular classes meeting twice weekly. No regular classes were held on Friday or Saturday morning but the

facilities were available to students who wished to spend some time in supervised play.

Intramural athletics were organized and made a definite and important part of the program. Various tournaments and games were held.

All intercollegiate sports were supervised by the Department of Health and Physical Education under the administration of the Governing Board of the Seth Low Students Association. Seven athletic teams were formed which met other colleges in competition. The policy of the Department relative to intercollegiate teams has been to organize only those activities which the students have earnestly requested, and even then, before final recognition was given, the students were required to carry on the sport through a trial period. Approximately 130 men have participated in athletic competition during the past year while not more than twelve men have engaged in more than one sport.

Care has been taken to ascertain the physical fitness of each student before he has been permitted to take the course in health and physical education. Each student entering the College is required to send in two medical blanks. One gives the student's medical history and the other the results of a physical examination by his physician. These forms are analyzed by the Medical Officer of Columbia University for approval or recommendations in defective cases. In placing students in activities the Department of Health and Physical Education closely follows the recommendations of the University Medical Officer.

The work in health and physical education has been carried on under severe handicaps. The distance of the Plymouth Institute from the College makes it a difficult and arduous experience for the students to get to and from their classes. The facilities of the Institute are inadequate for the type of program the Department wishes to conduct and for the successful organization and operation of intramural and intercollegiate athletics. The establishment of a medical service in Brooklyn is strongly urged by the University Medical Officer.

With the introduction of a third year program only one addition has been made to the courses in English, namely, advanced English composition. A large group of students has indicated an earnest interest in taking advanced courses in English and do not like to travel to Morningside Heights to obtain them. Budgetary provision should be made for the offering of advanced literature courses in Seth Low Junior College.

During the past year the Department of Psychology under the direction of Dr. Matthew N. Chappell offered several courses in general psychology. This year abnormal psychology and the psychology of personality were added. Arrangements have been made for the coming year to offer a course in experimental psychology. A room has been made available for this purpose and the necessary equipment has been purchased.

A serious difficulty confronting the students during the past year has been removed. It has been necessary for students who were deficient in high school physics or chemistry to attend classes at Morningside Heights in the evening. Very often students did not reach their homes in Brooklyn and Queens until 11 or 11:30 p. m., and because of exigencies of the program were compelled to be in classes the following morning at 8 o'clock. With the coöperation of the Physics and Chemistry Departments, classes in *Physics 1–2* and *Chemistry A* will be offered next year at Morningside Heights in the late afternoon. This action will have a beneficial effect upon the morale of the student body.

The Department of Zoölogy, as previously mentioned, has strengthened its offering during the year. For the coming year, a full year course in comparative anatomy and physiology of vertebrates has been added. In order to make this possible, additional equipment was purchased and adequate storage space provided.

Students of the College may take a course in the evolution of man which is given by the Department of Zoölogy in University Classes, Brooklyn. The Department considers

this addition to the curriculum of considerable importance as it presents an opportunity for students to acquire an objective unemotionalized knowledge of the natural background of man.

The College will now offer the equivalent of zoölogy courses given in Columbia College. These together with the advanced courses offered by other departments make it possible to offer a high-quality liberal arts program for students who desire to enter professional schools of medicine.

Seth Low Junior College suffered a severe loss by the death of Professor Robert H. Bowen. Professor Bowen for many years lectured in zoölogy in Brooklyn. He was beloved by all of the students both because of his excellent instruction and his charming personality.

Several pressing problems which need careful consideration confront the Department of Zoölogy. The laboratory is entirely too small to conduct effectively the large program which is needed by the students who desire to pursue professional option in medicine. The office space for the instructors and assistants is entirely inadequate. At the present time there is no provision for the support and encouragement of research for the zoölogy staff. Facilities should be provided for this purpose.

In connection with the work of the departments it is interesting to note that the use of books in the Seth Low library has increased from 26,257 to 41,492 during the past year, according to the report of Mr. Ralph F. Miller who has supervised the library for the last two years. The library of Seth Low Junior College now has approximately four thousand books. The facilities of the Library of Columbia University at Morningside Heights are also available for students of Seth Low Junior College.

It is the policy of the administration to emphasize the complete social development of each student. In order to give the students an opportunity to participate in group activities, the Seth Low Students Association was organized last year. This year the administration of student activities

has been divided into two parts, the athletic and non-athletic. As indicated above, the Department of Health and Physical Education supervises all athletics.

The important non-athletic activities are debate, fraternities, Medical Society, Barristers Society, French Club, German Club, Psychology Club, Orchestra, Glee Club, college dances, college boat ride, and the publication of the weekly newspaper, the Seth Low Scop. The classrooms have been made available for these activities. However, the expansion of the College has made it impossible for so much room space to be given to student affairs. This creates a serious problem because many of the clubs must have some definite space if the activities are to be carried on in such a way as to promote interest, to say nothing of the development of the social side of student life. At the present time space is needed for Glee Club and Orchestra practice, offices of the editorial and business staffs of the Scop, a Student Council office, rooms for general meetings of the various organizations, and headquarters and recreational centers for the fraternities. The social life of the College would be furthered if these organizations were accommodated in suitable quarters.

Lack of facilities is still more keenly felt in the construction of the program of courses. This lack is intensified due to the fact that almost two thirds of the student body are compelled to travel to Morningside Heights on Tuesdays and Thursdays in order to obtain instruction in physics and chemistry. This is a serious difficulty; first, because of the time that the student wastes in travel; second, it overweighs the program in Brooklyn on Mondays, Wednesdays, and Fridays to such an extent that many students are forced to have from four to six hours of laboratory and classroom work on these three days; third, it makes it impossible to offer a weekly program of three periods in health and physical education; and fourth, it prevents the growth of the College beyond the third year.

The outstanding need of the College is a new building. The two floors of the Brooklyn Law School building, which the College now occupies, do not provide facilities for astronomy, chemistry, drafting, fine arts, geology, music, physics, or health and physical education. The atmosphere of a crowded building primarily devoted to legal education is not conducive to the development of the best that the liberal arts tradition has to offer. It is not the mechanical necessity of additional space alone which calls for a home, but the need for an atmosphere which encourages the judicious employment of leisure, the vigorous pursuit of the liberal arts, the development of life-long friendships and the growth of deeper loyalty to associates and Alma Mater.

In the report of last year it was stated that the large number of well-qualified students turned away from Columbia College because of the lack of facilities seemed to indicate that there was a need in the metropolitan area for two colleges of Columbia University offering the degrees of Bachelor of Science and Bachelor of Arts. The development of the third year program in Seth Low Junior College, the increase in enrollment and the improvement in the quality of the students, the congestion of the facilities of other colleges and universities in the metropolitan area, the increasing demand of professional schools for college graduates, and the expressed desire of students, their parents, high school grade advisers, and principals for a high grade local college, all point to the imperative need of establishing a four-year liberal arts college in Brooklyn if Columbia University is to give a fully satisfactory service to its immediate community.

The following constitutes a summary of the present needs of the College: First, space for classrooms, laboratories, and offices for the offering of astronomy, chemistry, drafting, fine arts, geology, music, physics, and advanced zoölogy; second, space in or near the College building for a satisfactory program in health and physical education; third, medical service for the students; fourth, space and equipment for research by the staffs of the various science departments; fifth, suitable quarters for the development of the social life of the College; sixth, advanced courses in several departments;

seventh, the participation of the College in a coördinated educational service for the community; eighth, budgetary provision for officers of instruction of higher professional rank; ninth, a new building to serve as a home for the College; tenth, a four-year program leading to the degrees of Bachelor of Science and Bachelor of Arts.

Respectfully submitted,

Edward J. Allen,

Acting Director

June 30, 1930

SCHOOL OF BUSINESS

REPORT OF THE DIRECTOR FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to present herewith the report of the School of Business for the academic year ending June 30, 1930.

I desire first to record the following resolution adopted by the Trustees of the University at their meeting held on April 7, 1930:

Resolved: That, pursuant to the provisions of the Statutes, Section 176, the following officers of the University, nominated by the President, be and hereby are appointed to serve as members of the Administrative Board of the School of Business, for three years from July 1, 1930, provided they continue in the service of the University: Director James C. Egbert, Professor Robert M. Haig, Professor Roy B. Kester, Professor Roswell C. McCrea, Professor Frederick C. Mills, Professor Thurman W. Van Metre, and Professor H. Parker Willis.

Schools of business as yet belong in the class of educational institutions of recent history. To those familiar with the development of university and collegiate education for the past twenty-five years, the purpose for which these schools exist is readily understood. This is not true, however, of the public in general. To the man in the street, the purpose of a school of business must of necessity be primarily and simply vocational—in other words, these schools, in his opinion, exist for the purpose of training young men and women so that they may be more skillful in business and more capable of making money.

The history of the organization of the School of Business at Columbia University and a review of all that preceded and followed that event indicate the incorrectness of this point of view. The experience at Columbia, however, was not at all unique. For a number of years the students of

economics-or of political economy as the subject was originally termed—had declared that there existed a science of business which could and should be formulated in such a manner as to admit of instruction in schools of higher education. This view was not at first accepted either in the universities or in the world of business and the apprenticeship system or practical experience as a means of training for business was the prevailing doctrine. Again, students graduating from college before entering upon the professions of medicine or of law enjoyed special training in the fundamentals of these subjects. The young man entering upon a business career lacked, therefore, the opportunities of education that fell to the lot of those who chose a profession. In other words, the large body of young men of every collegiate graduating class who turned to business were without training and were as ignorant as the youth who began business in his teens. To meet this situation neither the economist nor the educator was satisfied to invade the field of cultural training and destroy or dilute the course in the liberal arts by placing purely business subjects, even though fundamental, in that curriculum. A review of these considerations led to the plan whereby two years of cultural courses would be followed by special training in business.

By this plan, the college student who intended to enter business was equipped for his career and the liberal arts course was not disturbed for those who planned to enter the professions. In this way, Columbia through its School of Business in its undergraduate system is performing a distinct service in collegiate education. This has been stated repeatedly but I am mentioning it again because some have questioned the wisdom of offering the two-year undergraduate course built upon the two years of cultural work.

Recognizing, however, that we should dignify the new profession of business by treating business education as we do training in law and medicine, Columbia arranged a one-or two-year course for those who had completed the normal four-year college course, offering the degree of Master of Science for the one- or two-year graduate students. This

was a recognition by Columbia University of business as a profession. Beyond this, following the views of the economist we regard business as a science and therefore arrange for opportunities for research and investigation on the part of the scholars who form the staff and present methods of research for those who are students—candidates for the degree of Doctor of Philosophy. In fine, the School provides for those who can afford only the four undergraduate years, also for the graduate student, and for the scholar who desires to pursue research in the science of business. I can report, Mr. President, that there is evidence on every hand that the School of Business is accomplishing the purposes indicated and outlined above.

I hear continually from earnest students who are deeply grateful for the opportunity we have afforded them. One has written to me of his graduate year that it was the happiest of his scholastic career. He adds that to him "the art of teaching lies not so much in chiseling knowledge into the heads of students as it does in developing a real thirst and self-initiative for the pursuit of facts and their logical correlation and this your faculty has done for me and I am very grateful."

This report is intended to indicate how we exemplify the theories discussed above in the conduct of the educational work of the School.

The plan of study is about the same as that of the preceding years. In 1929–1930, we added casualty and surety company accounting and Spanish business conversation and correspondence; in 1930–1931, the individual and social theories of business, practical problems of trade unionism, origin and development of business institutions, security analysis, geography and international commercial relations, and a seminar in insurance and risk-bearing. The curriculum is also amplified through the business courses offered in University Classes which are under the careful supervision of a member of the staff of the School.

We can record a few changes in our staff, due in most instances to leaves of absence. I might mention in particular Professor Donald H. Davenport, Assistant Professor of Statistics, who has temporarily joined the staff of the Harvard Graduate School of Business Administration on the request of Dean Donham. We welcome the return of Professor Robert Murray Haig who has been absent for the past year engaged in study of taxation in European countries. Professor J. Russell Smith has been granted leave of absence for the year 1930–1931 so as to complete an important publication on the subject of economic geography. In his absence, Professor J. Anton de Haas of Harvard University will offer a course treating of the economic interdependence of the nations and of the political, legal, and commercial structure of present-day international society.

The School of Business has been most fortunate in being able to retain on its staff those who have been connected with the School from its earliest days. This record has not been broken until this year. In November last, Professor Robert H. Montgomery, Professor of Accounting, felt that it would be impossible for him to continue his duties in the School on account of the pressure of business. Professor Montgomery has been most generous in dealing with the School of Business and the School owes to him an extraordinary debt of gratitude for the service which he has rendered and the interest which he has taken, particularly in the library, to which he has added many rare books in the Montgomery Collection. He came to the School at a time when it was regarded as somewhat of an experiment and aided in giving it the reputation which it now possesses.

Professor George Filipetti, Assistant Professor of Business Administration, has accepted a call to a professorship in the University of Minnesota. We look with great satisfaction upon the honor which has come to one who has been so pleasantly associated with us for a number of years although we regret exceedingly his withdrawal from the School of Business of the staff of which he has been a very active and useful member. Many of the graduates of the School will remember with great satisfaction the ability with which Professor Filipetti conducted his classes.

I desire to report also that Professor A. H. Stockder has been relieved of his duties as librarian of the School of Business and will devote himself more fully to teaching and scholarly work. May I pause at this point to express my appreciation of Professor Stockder as librarian. He has given of his time and strength unsparingly. His difficulties have been many as it has been necessary to build up and organize a business library in the School of Business, although funds requisite for the attainment of his purpose in a manner satisfactory to himself were not available. Nevertheless much has been accomplished and the foundation has been laid for a satisfactory library of the School of Business. Professor Stockder will offer the course referred to above, entitled "Origin and Development of Business Institutions," which will treat of the theory and technique of the origin and development of the legal, economic, and social institutions and controls of business.

From statements made above, it is very evident that one of the definite purposes of the School of Business is to be of aid to the business world, first of all through the education of students in the School, but beyond this to a very great degree through the influence of its staff in business and in civic life in general. The account of the activity of the instructors of the School of Business pictures in rather an extraordinary degree the achievement which we claim in this field of endeavor on the part of our School.

Thus, Professor R. C. McCrea, Hepburn Professor of Economics, has written biographical sketches of Henry Bergh and Edward Atkinson in the new *Dictionary of American Biography*. Professor McCrea is also the General Editor of the "American Business Series" of Henry Holt and Company. He has recently been elected to the Board of Trustees of the Academy of Political Science to fill the vacancy caused by the death of Professor Henry R. Seager. Professor McCrea also was elected first vice president of the Academy.

Professor H. Parker Willis has published several important works in the field which he has made his own. These are twelve articles published one each month in *The Banker*

(London) analyzing existing banking conditions. He has also prepared articles on finance and business in the *International Year Book* for 1930. He has also written various shorter articles for the *North American Review*, the *Annalist*, the *Financial News* of London, *New York Herald Tribune*, and has published in association with J. I. Bogen a volume entitled *Investment Banking*.

Professor R. B. Kester has thoroughly revised his well-known Volume I on Accounting Theory and Practice.

Professor T. W. Van Metre has served the Chamber of Commerce of the State of New York by preparing two reports, one dealing with the method of financing the subways of the city of New York and the other presenting a study of the problem of railroad consolidation.

Professor J. Russell Smith has completed Volume II of his *Human Geography, Countries, Regions, and Trade*, and an elementary geography entitled *World Folks*.

Professor O. S. Morgan is the Chairman of the University Committee on Rural Affairs which is interested in research in its field. He has also presented a constitution for a proposed Columbia University Institute of Rural Affairs. Professor Morgan is continuing his helpful service for the Near East Relief and is aiding in formulating the agricultural and educational efforts undertaken in the Near East.

Professor Frederick C. Mills has continued his research work in the field of prices under the auspices of the National Bureau of Economic Research and has conducted, for the President's Committee on Recent Economic Changes, studies on price movements and related industrial changes in the United States. He has also written the article on "Price Statistics in the United States" for the Encyclopaedia Britannica.

Professor James C. Bonbright has continued his research work in the valuation of property, preparing the final volume on this subject for publication in 1931. In all, twenty-four articles on this research have been published. For the academic year just closing, Professor Bonbright has published in coöperation with J. C. Katz an article on "Valuation"

of Property to Measure Fire Insurance Losses," *Columbia Law Review*, November, 1929; and, in coöperation with C. Pickett, an article on "Valuation to Determine Solvency under the Bankruptcy Act," *Columbia Law Review*, May, 1929, *Commercial Law League Journal*, November and December, 1929.

Professor Ralph H. Blanchard has been collecting information on insurance for the Committee to Study Compensation for Automobile Accidents. He is a member of the Educational Committee of the Insurance Society of New York, being one of its Directors. He is also editor of the McGraw-Hill "Insurance Series."

Professor Paul H. Nystrom published in September his *Economic Principles of Consumption*, a pioneer book in this field. He has revised his *Economics of Retailing*, a textbook in two volumes. Professor Nystrom has revised also his pamphlet on *Chain Stores* for the Chamber of Commerce of the United States.

Professor B. H. Beckhart has been faithfully pursuing his research work on the money market and has written certain articles, e. g. "The Branch Bank Problem" for the New York Herald Tribune, April 20, 1930, and "Canada's Experiment with the Temporary Suspension of the Gold Standard" for the Annalist, April 25, 1930. He has published for Henry Holt and Company, The Banking System of Canada. He is the American Representative on the Executive Committee of the International Banking Students Association.

Professor Hastings Lyon has published in coöperation with Herman Block a biography of *Edward Coke*, *Oracle of the Law* (Houghton Mifflin Company).

Professor Donald H. Davenport has aided in revising *Problems and Tables in Statistics*, edited by Professor Mills and himself, published by Henry Holt and Company.

Professor Paul F. Brissenden has been engaged on a study of the use of the injunction in labor controversies. This year he has completed his preliminary plans for a current month-to-month construction of an index of the turnover of office and clerical employees in the New York metropolitan region.

This index covers primarily banks, insurance companies, and department stores. Professor Brissenden is a member of the Committee on Personnel Practices of the American Association of Social Workers and of the Advisory Committee on the investigation into public relations in the motion picture industry undertaken by the Federal Council of Churches. He has prepared in collaboration with C. O. Swayzee an article on "The Use of the Labor Injunction in the New York Needle Trades" for the *Political Science Quarterly*, December, 1929.

Professor John E. Orchard has completed the manuscript of his book on Japan's Economic Position: A Study in Industrialization made under the auspices of the University's Council for Research in the Social Sciences. He has written an article on "Japanese Expansion in China" for the Annals of the American Academy of Political and Social Science and a paper on the "Introductory Course in Economic Geography for Schools of Business" for the National Council of Geography Teachers. This has appeared in the May number of the Journal of Geography.

Professor H. K. Nixon is engaged on the relative efficiency of various styles of layouts in magazine and trade-paper publications for the McGraw-Hill Company and is looking forward to the preparation of An Index of Brand Familiarity of Some Advertised Products.

Dr. L. A. Wolfanger has published through John Wiley and Sons a book entitled *The Major Soil Divisions of the United States*, a Pedologic-Geographic Survey.

Dr. H. S. Person, a highly appreciated lecturer on our staff, is editor of and contributor to *Scientific Management in American Industry*, Harper and Brothers, 1929. He is also editor and supervisor of translation of *Robots or Men?*, Harper and Brothers, 1930.

It is my duty and privilege to enumerate again as in my previous reports, the various ways in which the members of the staff have been of service in the city, state, and nation, and in foreign countries to a degree that may be regarded as unusual. The devotion and skill of these experts on the

staff have brought distinction to themselves and also to the School.

Professor H. Parker Willis, Professor of Banking, is engaged on a research review of the banking situation in West Virginia with a view to recommending legislation designed to improve banking conditions in that state. In August, Professor Willis will visit Rumania for three months at the request of the Government of that country to study and report on the economic conditions.

Professor Robert Murray Haig while in Europe was appointed by the Government of the United States as Taxation Economist and was delegated to gather data relating to the taxation of forests in certain European countries. He is now preparing a report for the use of the Foreign Taxation Inquiry of the United States Forestry Service of the Department of Agriculture. Recently Professor Haig has been appointed by Governor Roosevelt as chairman of the St. Lawrence Water Power Commission. This appointment confers great honor upon the University and upon Professor Haig.

Professor James C. Bonbright has this year completed his work for New York State on the Commission on the Revision of the Public Service Commission's Law. During the summer, Professor Bonbright has been busy preparing a report on the subject of holding companies of common carriers, for the Committee on Interstate and Foreign Commerce of the House of Representatives. According to Chairman Parker's preliminary report for his committee, Professor Bonbright has been requested to "study the genesis, the development and history of the holding companies with a view of determining how they function and showing their place in American business together with their advantages and disadvantages. There are a number of difficult constitutional and legal questions connected with this investigation."

Professor O. S. Morgan has been engaged by the New York Water Supply Department to make a survey of soils of some thirty parcels of land in the region of the Delaware Water Gap.

Professor Paul F. Brissenden has prepared a report on "Earnings of Factory Workers from 1899 to 1927" for the Department of Commerce of the United States Government.

An enumeration of this character indicates very clearly how the members of the staff of the School of Business regard their duty in the way of public service.

The students in the School of Business this year numbered in all 485 as against 444 in 1928–1929. Of these New York State, including the greater City furnished 231. The number coming from outside the state was 254; those from the United States 435; and 50 from foreign countries. The students of the School may be considered under various categories. Thus of those who are candidates for degrees, 207 were registered for the degree of Bachelor of Science as against 202 last year, 139 for the degree of Master of Science as against 134 last year, and 39 for the degree of Doctor of Philosophy as against 25 in 1928–1929. Again the special or unclassified students numbered 100 including 31 who were candidates for the Secretarial Certificate.

At the Commencement in June, 1930, 77 students received the degree of Bachelor of Science as against 62 in 1928–1929; 36 received the degree of Master of Science as against 41 in the preceding year. Secretarial students to the number of 8 received the degree of Bachelor of Science and 16, the Certificate in Secretarial Studies.

An interpretation of these statistics indicates the very decided tendency to graduate study in the School of Business shown by the large increase in the number of registrations of candidates for the degree of Doctor of Philosophy. These also indicate the confidence which graduate students have in the ability of members of our staff to guide them in research and original work. These figures also clearly point out that the School serves an important purpose in caring for the undergraduate student and that this achievement does not interfere with the most advanced work called for in such a school. Unless Columbia College is ready to offer fundamental courses in business to students of that part of the University it would be most unfortunate for the School of Business to abandon

its undergraduate offering which is furnishing such important instruction to the students who at the close of their undergraduate days will go at once into business. In this connection, may I call attention to the fact that 417 registered students of Columbia College elected courses in the School of Business.

We have often claimed that our School is both national and international in its constituency. This is fully justified by the record of 119 different institutions from which our students come. Of these, 50 are from universities in foreign countries. The largest body of students naturally came from Columbia University as follows: Columbia College, 97; University Classes of University Extension, 28; Barnard College, 14; New York University and the College of the City of New York, 9 each; University of Pennsylvania, 8; University of Illinois and University of Washington, 7 each. From Harvard came 6; from Yale, 5; from Colgate, 5. Eight other institutions sent 4 each and ten sent 3 each.

During the year 1929–1930, further effort was made to consider the interests of the students in the way of their social experience while members of the School of Business. The School of Business has at its command a room for social purposes which is located in the School of Business building and is reserved for the social interests of the students of the School. We were fortunate in obtaining the services and interest of Mrs. Harry J. Carman who was on duty in the Social Room three afternoons a week and on many other occasions when students of the School were welcomed to a social tea and given an opportunity of becoming acquainted in a manner which classroom experience does not encourage.

The School of Business has been compelled to face the problem of suitable relief for students who find difficulty in meeting the tuition fees. This is not an unusual experience, as is well known, for educational institutions. In consequence, there has been much discussion as to the proper way of solving this problem, and we have reached the decision that there are two methods of meeting this difficulty, either of which may be followed.

In the first place, the University is able to offer to students a loan fund from which they may obtain assistance in the form of an honorable debt. We have been aided also by the Harmon Foundation, Division of Loans, which has made a thorough scientific study of the loan system.

The other method is to offer for high scholastic attainment a scholarship which covers the tuition fee either in whole or in part. The University has granted to the School of Business students six scholarships to the value of \$300 each. Through the generosity of four friends of the School of Business we were able to offer also the following scholarships:

- Arthur K. Salomon Scholarship in the School of Business, carrying a stipend of \$300 each year, for a student whose chief interest lies in the field of finance.
- Joseph S. Marcus Memorial Scholarship in the School of Business, carrying a stipend of \$350 each year, to be awarded preferably to a student of banking or finance.
- 3. C. Stanley Mitchell Scholarship in the School of Business, carrying a stipend of \$350 each year, to be awarded preferably to a student whose major field is banking or finance.
- 4. Saul Singer Scholarship in the School of Business, carrying a stipend of \$350 each year, to be awarded preferably to a student whose major interest is in banking or finance.

These scholarships are open to students of high scholastic standing who must maintain at least a grade of C in all courses taken and whose career at the University must at all times receive the approval of the Director of the School.

These interested friends have granted to our students the opportunity of meeting the obligation of their tuition fees.

We are also meeting the problem which is presented because of the need on the part of students of engaging in remunerative employment. Many of our students are employed in different parts of the University and many of them are also engaged in part-time positions in business houses throughout the city. Although we are desirous of having the students obtain practical experience, nevertheless, it is a matter of great importance to restrain these young people from engaging too freely in outside employment while they are students in full standing in the School of Business. Courses in business

offered in University Extension are of assistance in enabling us to care for this difficulty.

The staff of the School of Business has appointed a Committee on Employment which is active during the academic year and renders a complete and interesting report at the conclusion of its labors. During the past year, 40 men and 13 women, constituting 67 per cent of the students registered for employment, have been placed in positions. In the preceding year, there were 73 placements, constituting 50 per cent of those registered with the Committee. The number of persons called for by employers was 152, the requisitions coming from 38 business firms and 43 educational institutions. These figures for 1929-1930 show a decline from the preceding year which we may safely attribute to the present depression in business. The number of business firms calling for students dropped from 62 to 38 and the number of educational institutions sending in requisitions increased from 23 to 43. This large increase of calls from educational institutions is very significant. It indicates that the institutions devoted to instruction in business are increasing in number and are in constant need of instructors in this field. I have already stated that the number of graduate students in the School of Business is steadily increasing. This is particularly gratifying to us because it indicates that a larger proportion of the students graduating from the School of Business is interested in teaching and research positions. Of course, at the present time, a large proportion of the students registered for employment evinces interest in business positions.

It is the policy of the Committee to refer to specific openings only such students as are considered qualified to fill them. The Committee has referred 52 different students to openings that have been presented. Each one of the students, on the average, has been given an opportunity to obtain a position in two or three different openings, inasmuch as 125 references have been made to employers in behalf of the 52 students.

In reviewing the different types of service desired by student registrants, we find that the following subjects are preferred: banking, accounting, securities, merchandising, and manufacturing. As subordinate preferences, we might mention foreign trade and transportation, advertising, and secretarial. It is interesting to note that the number of students desiring banking positions has decreased but has increased in the case of accounting. On the other hand, the requisitions made by employers show a marked decrease in the number of accountants called for and very few requests have come from banks. Here again, we are aware that the conditions in the business world are responsible. Another item of interest is furnished in the large number of students trained in statistics and research who are now called for by business houses. We note also the demand for those who are qualified to become executive officers. As I have stated above, the past year is marked by a larger number of requisitions from colleges for students desiring teaching positions, as compared with the preceding year.

We may, therefore, gather from this report of the Committee that the efforts of the School of Business in drawing the attention of its students to positions in educational institutions and preparing them for their careers are meeting with success.

As in preceding years, the Committee has circularized the alumni to ascertain the nature of the work in which they are engaged. They have received 357 replies to their letters as compared with 250 last year. It is interesting to note that 78 of the alumni are executives of corporations, 75 are engaged in accounting, 71 are executive secretaries, 46 are engaged in statistics and statistical research, 33 are busy at selling and as sales representatives, 30 have entered the field of securities, 29 have chosen advertising, 27 are connected with insurance companies, 23 turned to real estate and real estate management, while 22 have become sales executives including promoters and managers; 22 have turned to merchandising and marketing, 17 are in the banking field, 15 are in foreign banking, 14 have become bank officers, and 14 have turned to credit investigation and analysis.

The Students' Committee on Employment has continued

its useful work and the Faculty Committee is much indebted to it in many ways.

The current year has seen a marked development of interest in the placement of students on the part of members of the Alumni Association. This Association recently organized a group of Alumni Vocational Counsellors under the chairmanship of Mr. Frank M. Gale. The following statement appeared in the April, 1930, issue of the *Business Alumnus*, the organ of the alumni of the School of Business:

Twenty-six alumni of the School of Business have agreed to act as Alumni Vocational Counsellors. The list comprises men engaged in practically every field of business activity of interest to the students at the Columbia School of Business.

Any student at the School of Business who wishes to interview any of the Vocational Counsellors may make arrangements to do so by leaving his name with Mr. McKnight, Secretary of Appointments. Mr. McKnight will complete the arrangements for the interview and all that the student has to do is to present himself at the appointed time. It is expected that the students at the School of Business will make considerable use of the facilities that are now at their disposal, for interviewing carefully selected men engaged in the various fields of business. Your Employment Committee feels that this service will be welcome, and is confident that it will be of real value to the men on the Campus.

I desire to record particularly the interest which the alumni of the School of Business have shown in the welfare of the School and in the endeavor to increase the interest of all of the alumni in their own organization and in the School of Business of which they are alumni. Through the efforts of Mr. George Jacoby, President, and those who are associated with him, a most successful dinner was held at the Columbia University Club on April 28. The address was delivered by Mr. E. H. Simmons, former president of the New York Stock Exchange. The alumni have issued two numbers of a paper entitled *Business Alumnus*. This organ is used to spread information about the School and the activities of the alumni with a definite purpose of arousing and maintaining interest in the affairs of the School.

For the past two years, the Administrative Board has authorized the offering of a course entitled "Business Policy."

Attendance at this course is required of all undergraduate students. The course consists of lectures of a more informal type by prominent business men on various aspects of business policy. The speakers during the past year were: Edward L. Greene, general manager of the National Better Business Bureau; Martin Vogel, former Secretary of the Treasury; Charles Wesley Dunn, an authority on Federal anti-trust laws; Samuel Lewisohn, publicist and philanthropist; Robert E. Simon, president, Carnegie Hall Corporation; Francis H. Sisson, vice-president, Guaranty Trust Company; and Edward Thomas, an authority on patent law.

The School does not offer a course specifically in business ethics as it is our opinion that this subject should pervade instruction in every course. Nevertheless, the course in business policy furnishes additional instruction in this important subject of business ethics.

The School of Business is greatly indebted to many men in active business, specialists in their several fields, who have volunteered to speak before various classes. At the accounting seminar, the speakers were Herbert C. Clark, John Jaffe, Charles Neubauer, J. Andrew Crafts, Henry W. Sweeney (an alumnus of the School), Wilfred H. Hemingway, Mrs. H. G. Anderson, Walter B. Cokell, E. G. Reynolds (alumnus), Thomas W. Woolhouse, Lester F. Brumm (alumnus), T. M. McNiece, Francis S. Carr, Harry A. Hopf (alumnus), Walter Rautenstrauch. The seminar in statistics was addressed by Colonel M. C. Rorty. The students attending the seminar in banking had the pleasure of hearing E. O. King, former editor of the Magazine of Wall Street; Alexander Wall, director of research, Robert Morris Associates: Lester W. Taylor, an alumnus of the School, and investment counsel of Fox and Trainer; John C. Orcutt, vice-president of the Irving Trust Company; Walter E. Cappa, assistant trust officer of the Manufacturers' Trust Company; Howard Mott, investment banker; Thomas A. Balogh of the University of Budapest; and Herman N. Finkelstein, lawyer.

The publications of the School of Business either in the School series or by individual members of the staff, especially

in the presentation of the results of research study, have earned a well-deserved reputation as scholarly productions of a high character. The value of such publications is shown in the use of the volume entitled *Scandinavian Banking Laws*, published in 1926 by the Columbia University Press, by the Secretariat of the League of Nations in preparing a comprehensive collection of monetary and banking laws. This School of Business publication will be the basis for the texts of Swedish, Norwegian, and Danish laws. The School is issuing volumes of this character as means at hand permit.

The alumni of the School and the members of the staff are very desirous of furnishing another vehicle for scholarly papers in the form of a quarterly. Professor H. Parker Willis, who has had large editorial experience, has consented to serve as editor of such a journal. An endeavor is being made to obtain funds for this worthy project and friends of the School should aid the staff in finding the requisite means for this periodical. The staff has appointed a special committee on this subject.

At the beginning of this report, I have referred to the object for which the School of Business exists and have endeavored by the material which I have presented in the report to exemplify these statements.

In a summary, I might say that we have in mind the grounding of undergraduates of a collegiate grade in the fundamentals of business which will enable them to enter upon their careers equipped in like manner as their companions in the various other professions. We are also interested in supplying graduate work for those who intend to undertake educational work and become instructors in some department of the profession of business. As we hold that business is a science, the members of our staff and the graduate students are interested in scientific investigation and research. Our School regards this research as one of its important functions and enters upon the work of investigation with enthusiasm, indorsing the sentiment of Virgil's line Felix qui poluit rerum cognoscere causas. As a result the members of our staff are rapidly becoming recognized as experts and

are called upon by men of business and particularly by those of governmental authority for help in matters of civic interest. This in brief is the record of the past year replete with evidences of active services in a subject which is of such vital importance to the welfare of our fellow citizens.

We are very grateful for the commodious quarters in Schermerhorn Hall recently placed at the disposal of the Professor of Agriculture and his associates. Classroom, drafting rooms, offices, and equipment are now adequate for their present needs. We find a very satisfactory development in agricultural economics and farm management. During the year two nationally known authorities gave special lectures and conducted a round-table discussion. A day's field trip into New Jersey gave opportunity to observe first hand the operations and layout of a "corporation" farm. The New Jersey State College of Agriculture is always helpful in coöperating with the members of the Department of Agriculture in field trips.

Columbia University through its School of Business and School of Law has attained an enviable reputation because of its investigations in the allied fields of business economics, public utilities, and business corporations. Professor Bonbright of the School of Business and Professor Berle of the School of Law are outstanding authorities, the former on public utilities and the latter on the law of the modern corporation. The fundamental importance of the problem of public utilities on the social aspect in the past few years aroused the attention of the public. There is now a very sincere demand for intensive research in this field and for the service of men of ability, thoroughly trained and qualified to approach the subject with unprejudiced minds.

It is most timely for the School of Business to consider the organization of a bureau of public utility economics. The location of Columbia University in the greatest commercial center of the country, the fact that those who are particularly interested in this field are connected with the University, and the spirit of coöperation which exists between the different schools which would be expected to take part in public utility

studies-all of this places before us advantages which do not exist elsewhere in the United States. The modern business corporation which presents many social and economic problems and the entire field of public utilities with the many questions arising and bound to arise in the future deserve something more than incidental and periodic research, valuable as they may be. We need for both of these a permanent research bureau, to which the most brilliant young men of the country may be attached and thus become members of the staff of the University. Classes or seminars might reasonably be placed in their hands. Such a bureau must be cared for financially apart from the University. In other words it will be necessary in founding a bureau of this character to call for a special endowment of at least a million dollars or the grant of the income for a period of years of a like sum. Mr. President, this plan deserves our most hearty support and need not conflict with other demands of the School of Business. This is the crucial time for a development of this character.

The library of the School is constantly in the minds of the officers of the School, as it is so essential to the attainment of its educational purpose and research. Libraries of business are now in the making and the number of books on this subject is continually and rapidly increasing. Hence we must look forward to larger quarters as the years go by, for we are rapidly outgrowing the rooms set aside for the purpose.

In my report as Director of University Extension I shall refer to the need of a building set apart for University Classes and for Home Study. University Extension now occupies space in the building of the School of Business which, if relinquished, would provide for the growing needs of the School, particularly of its library. Were I to enumerate the immediate needs of the School I should place endowment for the library, then funds for fellowships and scholarships, a continually renewed fund for research, and finally, endowment for special subjects. The last of these might well be provided by those in the business world who are interested in special fields of business, e.g., real estate, advertising, banking, insurance.

As I close this report I desire to call attention to the cooperative and harmonious spirit which exists within the School and between members of our staff and their colleagues in all parts of the University. This atmosphere of friendliness is of greater value than a large endowment, an expectation of which, however, this spirit fully justifies.

Respectfully submitted,

James C. Egbert,

Director

June 30, 1930

SCHOOL OF DENTAL AND ORAL SURGERY

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to present the following report for the School of Dental and Oral Surgery for the academic year ending June 30, 1930:

REGISTRATION

Undergraduate	es:														
Freshmen															54
Sophomores															53
Juniors															59
Seniors												٠.			33
Total															100
Postgraduates															
Total Registra	tio	on				٠			٠	٠	٠		٠	٠	213
Students Grad	ua	ite	d												30

The School for Dental Hygienists had a registration of 77 girls, and graduated 72.

Three certificates of proficiency were granted to graduate dentists.

Twenty sophomores and twenty-five juniors were matriculated under the four-quarter-year plan. Begun as an optional arrangement, this has been found so successful that it probably will be recommended soon for adoption as the prescribed course. It is obviously the most economic from the standpoint of operation as well as of students' time.

The student body has shown a better tone than heretofore, and an improved professional attitude. The general improvement is due largely to the careful selection of students, initiated last year, by a committee of several faculty members. All applicants are examined on a basis of aptitude for the practice

of their specialty and for personality, as well as on their scholarship records. The number of applicants was larger than in other years.

The senior class began the publication of a creditable booklet, the *Dental Review*, which it is planned to have continued as a quarterly.

Aside from contributions to pledges mentioned in previous reports, the outstanding gift to the School was a grant by the Commonwealth Fund of \$101,100 over a period of three years, with the usual restrictions, for the purpose of research into the causes of dental caries. The work being done as a result of this generous appropriation is fully described under *Research*.

FACULTY AND STAFF CHANGES

New Appointments. Bert George Anderson, Associate Professor of Dentistry. Dr. Anderson has spent seven years in the surgical department at Peiping Union Medical College, Peiping, China.

Bror Eric Dahlgren, Associate Professor of Dentistry. Dr. Dahlgren, already well known in New York for his work in the Museum of Natural History, comes to us from the Field Museum in Chicago where he has served as director of the Department of Botany.

Promotions. Dr. Maurice Buchbinder to be Assistant Professor of Dentistry.

Resignations. Dr. Oscar J. Chase, Jr., Associate Professor of Dentistry. Dr. William Squires, Associate Professor of Dentistry.

TEACHING CLINIC

There has been a marked gain in the growth of the clinic idea, despite organized opposition by dentists who feel their often unearned financial gains threatened, and the more reactionary ethical and qualified members of the profession who mistakenly fear a decline in personal prestige through the growth of dentistry into a specialty of medicine. The teaching clinic is serving students and public to the limit of its capacity. Its usefulness has been greatly enhanced by the

establishment of a division of children's dentistry, described in detail below. The work already taken over for the Vanderbilt Clinic, the Presbyterian Hospital, and the Sloane Hospital has been extended to include the Neurological Institute and the Babies' Hospital, both of the Medical Center. development has added inestimably useful clinical and research material to that already available for staff and students. It offers graduate and research students, of whom the School has a growing number, as well as the undergraduate group, a field unique in the variety and extensiveness of its opportunities. This is in line with the policy of the School to expose the student on all sides to contacts with other specialties, as well as to give him a grounding in general medicine. The year has been marked by extended cordial support from the Medical School, notably in the research work being carried on under the grant from the Commonwealth Fund described below. (See Research.) The required lecture and clinical course in the practice of medicine established last year in the Department of Medicine has proved invaluable. This is a didactic course in the treatment and general diagnosis of clinical cases. especially those with (a) diseases which originate in the mouth and (b) diseases which show symptoms in the mouth. The course aims to introduce students to the field of general medicine, especially as it bears on the oral region. A dentist so trained would not fail, for instance, to recognize cancer of the mouth tissues or possible malignant growths, syphilitic ulcers, etc. Such training will help to reduce the shocking gap between the biologically trained physician or surgeon and the too commonly found technician type of dentist, who, by his inability to recognize symptoms or to realize systemic consequences of the restorative work he performs or recommends, does incalculable harm to health.

The School has had a surprising number of visitors from various countries of Europe and the Orient. These include graduate dentists, physicians, research workers, and semi-official and official governmental representatives who are especially concerned with the integration of dentistry with medicine as it is being developed here. They have spent

periods of from several days to a year at the School. Two physicians from Mediterranean countries remained to take degrees. This is mentioned as indicating that the theory of dentistry as properly a specialty in medicine is rather widely gaining ground.

Hygienists' clinics for prophylaxis have been established in two schools, the Haaren High School at West 59th Street and Tenth Avenue, and the George Washington High School at West 191st Street and Audubon Avenue. An innovation in this field was the establishment of a Campus Clinic to serve members of the Faculty and students. It is located in the Physics Building, at Broadway and 125th Street.

A further departure was the thorough examination, using X-ray, in coöperation with the Health Department, of four hundred incoming students of Columbia College. This was followed by personal advice to students, based on study of the radiographs. In many cases the examination discovered conditions of great potential importance to the student's health.

A strong aid to all phases of work in the clinic is the extended department of art and photography, already developed to an unusual degree by the late director of the School, Dr. F. T. Van Woert. Color photography was a special interest of Dr. Van Woert's. The department is being further admirably developed by Mrs. Katharine Kingsbury. An important undertaking was the working out of an elective course in facial art. It aims to give a thorough understanding of the fundamental principles of art as they may be applied in dentistry. There is also an advanced course in facial art, with a special student working on the process for printing scientific photographs in three colors. Various researches in progress are greatly aided by this department with photographs and lantern slides. There is a large and growing collection of such material readily available to staff and students.

Under the museum committee, of which Dr. H. W. Gillett is chairman, the museum, which contains more than two hundred specimen skulls of vertebrates from "fish to man," has been arranged philogenetically by Mrs. Kingsbury.

Study for this work was done under the direction of Dr. William K. Gregory of the Museum of Natural History.

CHILDREN'S DENTISTRY

The establishment of the division of children's dentistry meets a badly felt need. It was organized (a) to study the causes and means of prevention of dental caries, and (b) to equip dental students for rendering better dental service to children. Recent education of the public has resulted in an increased demand for more meticulous care of children's teeth. The department is in charge of a doctor who is both a graduate dentist and a pediatrician. He has the work well under way in both the clinical and the research phases.

The clinic is on H floor of the School. There are fifteen complete dental units, children's size, available for reparative dentistry and oral hygiene five afternoons a week. Senior students are trained in necessary restorative and preventive procedures, with emphasis on the psychology of handling child patients. This involves dispelling fears that may have been built up in children's minds regarding dentists and dentistry and the awakening of their interest in what is being done for them, with a view to obtaining their active coöperation. As far as possible the same principles of operative technic for insuring permanence of restorative procedure will be applied in this clinic as obtain in adult work.

Graduate work will also be included eventually. Graduate students will come in as assistants in the clinic. Their work may consist in either a year of twelve months graduate work leading to a certificate of proficiency in children's dentistry, or two years of graduate work leading to a degree of Master of Science in Dentistry. This will require half-time work in the clinic, one major and one minor course, with a thesis on the major subject.

Research problems embrace the studies of the causes of dental caries and the determination of means for its prevention and eradication. Patients for this work are selected from the clinic; also control and experimental groups are studied in the hospitals of the Medical Center, and in orphanages

and boarding schools near the Medical Center. These children are given careful examination, a complete history is taken and they are given prescribed diets with special attention to vitamin content, calcium, phosphorus, carbohydrates, and fruit juices, with in some cases the addition of activated ergosterol, parathyroid extract, etc. Some are given ultraviolet ray exposures. Effects of irradiated food products are also under investigation. Patients are given a routine of living to follow, with rules for hygiene. They are under constant supervision; data are secured from study and observation of them at periodic intervals. Prenatal study of the child through selected hospital cases available for observation and care of the mother before the birth of the child is also included. By a regulation of the diet, environment, hygiene, and mental state of the mother, it is hoped to affect the elemental constituents of the child's body so that it will more nearly approach the ideal. We are optimistic enough to believe that through the training and the observation of mother and child there is a possibility of preventing or eliminating dental caries. Supplementary problems will include a blood chemical study to determine if possible an index which will indicate immediately and definitely a condition of either susceptibility or immunity to caries. Attention will also be given to the correlation of susceptibility to caries, hypoplasia, and rickets, also to problems in jaw development. An attempt will be made to determine safe methods for capping pulps and treating canals.

RESEARCH

Researches being carried on individually by members of the staff are:

Cahn, Lester R.: Research on the use of differential stains on the dental pulp.

A study of the neuro-histology and neuro-pathology of the dental pulp. Crawford, William H.: An investigation of the physical properties of gold alloys, amalgams, plasters, stones, investments, cements, and silicates with the following in view:

 To teach the application of these properties for improving dental appliances. 2. To determine through coöperation with the teaching clinic what physical properties are most desirable in a given material for a given purpose.

To make possible the purchase of materials on specification, instead of by trade names, thus permitting the more intelligent use of mate-

rials based on a knowledge of their properties.

Kingsbury, Katharine Whitney: Study of the technique of color photography, to obtain correctly color values of various diseases, and of successive steps of gingival diseases.

Dr. Leuman M. Waugh, who spent the summer of 1929 under the United States Public Health Service investigating the mouth and teeth of the Alaskan Eskimo, especially in relation to various diets, left again in June on a similar expedition.

The most significant event in the brief history of the School is the grant by the Commonwealth Fund, mentioned above, for research into the causes and means of prevention of dental caries. In her notification in December that the grant had been made, the Assistant Director stated:

The Board was particularly interested in making the appropriation not only because of the project itself, but because of the close coordination it shows between the faculties of the School of Dental and Oral Surgery and of the College of Physicians and Surgeons.

In setting up the problems and in selecting the staff to undertake the research, the Faculty of the College of Physicians and Surgeons has given most generous help. A similar acknowledgment is gratefully made to the Department of Chemistry of Columbia University and the Department of Chemistry of Teachers College, especially to Professor H. C. Sherman of the former and Professor Walter H. Eddy of the latter.

As was stated in the report of the Dean to the President for last year, there is a pressing need for bona fide research of university grade into the cause and prevention of dental decay. This ailment affects more lives than any other; its ravages are of much greater moment to the general health than has been heretofore recognized. The generous grant of the Commonwealth Fund has made possible research, under

the joint auspices of the above-named staffs, that should have far-reaching effects on the health of the public.

The study is based on researches already made by Dr. C. F. Bodecker, indicated in the following argument by Dr. Bodecker:

ARGUMENT

Decay of the teeth is more prevalent than the common cold; most people do not consider it to be a disease. Yet it is a disease and one which not only interferes with the mastication and therefore the digestion of food, but which, through local infection of teeth, may even cause a variety of severe general illnesses. For these reasons health workers estimate the consequences of finding a means to prevent dental caries, second only in importance to that of curing and preventing cancer.

Decay of the teeth is steadily spreading with each new generation. Grandparents frequently retain comparatively good teeth, yet their grandchildren may have such poor ones that they require the aid of the dentist in early childhood. It is the rapid spread of this scourge from generation to generation that causes the health workers of the world to emphasize the necessity of coping with the situation.

Much is still to be learned before we can hope to prevent the decay of the teeth. This disease is thought to be due to an acid which forms on the surface of the teeth, generated by the fermentation of food debris. The acid (probably lactic acid) dissolves the mineral content of the enamel and thus decay begins. If we could find a means of neutralizing this acid before it attacks the enamel, it would be possible to prevent decay of the teeth. The success of alkaline dentifrices in achieving such a neutralization is minimal. The motto that "clean teeth do not decay" undoubtedly has done much good in reducing this disease, yet it can be only slightly checked by this means, for the toothbrush cannot really clean the many inaccessible areas of the teeth. The dentifrice, moreover, is soon washed away by the saliva; its supposed beneficial effects are of short duration.

Greater success could be hoped for in the prevention of decay if the neutralization of the mouth acid were found to come from an agent in the *interior* of the tooth. Such a contingency seems possible. It appears that this is nature's means of neutralizing the acid conditions of the teeth and thus preventing their decay under *natural* conditions.

The incidence of dental caries is astonishingly low in most of the savage races. It is therefore clear that civilization has had a deteriorating influence upon the integrity of the teeth.

A major problem of dental research is to discover the factors introduced by civilization which have caused our teeth to be more prone to decay. This problem has been approached from a number of angles, but with little definitive practical success. The use of sugar and highly refined flour (carbohydrates), as well as the lack of proper vitamines, is often made responsible for the startling increase of dental caries. Such factors doubtless have an evil influence upon the teeth; yet these do not appear to afford a complete theory as to the cause of this disease. A certain race in the Philippine Islands show a high incidence of dental caries in spite of an optimal diet and ample sunshine.

We know comparatively little of the phenomenon of dental caries as a whole and less of its initial stages. As already noted, it is believed that an acid is formed by a certain type of bacteria fermenting food. The acid then dissolves the tooth and thus decay begins. Such a theory, however, is incomplete for it does not explain the following puzzling exceptions:

- (a) Teeth do not always decay in the presence of food debris. Many persons who never use a toothbrush have filthy mouths; yet their teeth do not always decay. Other unfortunate persons clean their teeth five times a day in an attempt to stop decay, but are unsuccessful. Therefore the presence of food debris alone does not cause caries.
- (b) There appears to be an increase in the decay of the teeth during pregnancy and systemic illness. The prophylactic habits of individuals under such conditions usually remain the same (the care of the teeth is even augmented during pregnancy) yet decay commonly progresses more rapidly under these conditions.
- (c) Teeth whose pulps (nerves) have been removed, appear to decay more readily than vital ones. Why should this occur, if the cause is purely from the exterior?
- (d) One of the contiguous surfaces of two teeth sometimes decays, leaving the other intact. How could this take place if the destructive agent acts solely from the exterior? Does not this and the above statement (c) indicate that each individual tooth possesses a high resistance which originates in the interior?

There are other phases of caries of the teeth which cannot be explained by the older theory, but these will suffice to show its inadequacy.

The active agent of destruction of the teeth may be an acid aided by bacteria but some further and unknown factor exists which predisposes the teeth to decay. It is for the purpose of discovering this predisposing factor to dental caries that this research is suggested. If once this weakening influence can be controlled, it is hoped that this scourge will be eradicated.

A new theory of dental caries has been evolved which takes into consideration a predisposing factor and satisfactorily explains, for the first time, the above-named puzzling exceptions. This theory further regards the teeth as being an integral part of the body and considers that they are often influenced by the health and ill health of the individual.

This theory, briefly described below, is based on the hypothesis that dental caries has two causes:

(1) The primary, or irritating, cause which is an acid on the surfaces of the teeth, and

(2) The predisposing cause.

If the individual is in a normal healthy condition, the acid of decay is steadily neutralized by mineral salts present in the tooth itself and thus made innoxious; therefore no decay takes place. These mineral salts are carried in a fluid, the dental lymph, derived from the blood, which is known to contain various kinds of such salts. One of the functions of these salts in the blood is to neutralize acids in the muscles of the body. This is called "buffer power." As the dental lymph is derived from the blood, it is quite within the realm of possibility that this fluid also contains these mineral salts which have a like power of neutralizing acid and thus making the acid of decay harmless. The teeth would thus be secure from the deleterious action of the acid. It would be constantly counteracted by the buffer power of the dental lymph and therefore no decay would occur.

If the individual, on the other hand, is in an abnormal condition of health, the acid of decay is not completely neutralized, due to an insufficiency of mineral salts in the dental lymph. The acid is thus free to attack the tooth and decay results.

Certain illnesses, particularly acidosis, cause a reduction of some of the mineral salts in the blood (decrease of its buffer power) and this may have a like effect upon the composition of the dental lymph. Such a lymph would therefore be weakened in its power to counteract the acid on the surface of the tooth, consequently leaving the acid free to attack it and so form a cavity.

If this theory is substantiated, it would indicate that there are few really healthy civilized persons in the world, which seems absurd. But we must remember that health is a matter of degree, in fact, of widely varying degree, between the individual bursting with energy and vitality and the patient lying at death's door. The condition of acidosis is suspected to be much more general than previously supposed and in its first and often in its intermittent stages, it causes but few perceptible symptoms.

Simple as this theory appears and feasible as it seems in its practical application, it is by no means sufficiently substantiated to be practically applied in the prevention of dental caries. A number of phases of this problem remain to be investigated. This may require some years of research in the various fields of histology, physiology, histo-pathology, physiological chemistry, clinical medicine, dietetics, and possibly bacteriology.

Dr. Bodecker does not dogmatically claim to have discovered the only cause of the decay of the teeth by advancing the above theory; he suspects that there may be another factor besides mouth acid responsible for the destruction of the enamel. This new theory, however, explains for the first time a number of previously puzzling observations, and it is therefore considered profitable to direct research into the suggested channels.

The various phases which remain to be investigated in order to advance our comprehension of the problem of dental caries and possibly to substantiate the new theory as well as to make this applicable in the prevention of this disease, are the following:

OUTLINE OF VARIOUS PROBLEMS BEARING UPON THE DECAY OF THE TEETH

I. Histology

- ¹I. Investigations of the channels leading from the pulp through the dentine and enamel, by which the blood plasma, with its mineral content may reach the surface of the tooth to neutralize the acid of decay. Conducted by Dr. Charles F. Bodecker.
- ¹2. Investigations of the structural elements of the enamel with reference to their resistance to acid. Conducted by Drs. Henry and Charles F. Bodecker.
- 3. Investigations of the enamel cuticle as to origin, structure, and resistance to acid. Conducted by Dr. William A. Broder under Dr. Charles F. Bodecker.

II. Physiology

¹4. Investigations of the circulatory system utilizing the channels in the dentine and enamel. Animal and laboratory experiments. Conducted by Drs. Horatio D. Williams (or his deputy), Charles F. Bodecker, and Edmund Applebaum.

III. Histo-Pathology

- 5. Investigations of the destruction of the enamel by acid during the initial stages of decay. Conducted by Drs. Rosebury, Applebaum, Hollander.
- 6. Investigations of the bacterial invasion of the enamel in the initial stages of decay. (Very little is known of this phase on account of the difficulty of preparing specimens.) Conducted by Drs. Charles F. Bodecker, Linton, and Rosebury.

IV. Physiological Chemistry

¹7. Investigations of the chemical nature of the dental lymph (blood plasma in the tooth) and its possible variation in mineral salts as a result of systemic conditions. (A difficult problem which requires new methods of investigation.) Conducted by Drs. Rosebury and Charles F. Bodecker.

¹ Problems which should be first attacked.

V. Clinical Medicine

¹⁸. Investigations of the relations of rampant dental caries to the conditions of the blood with emphasis on the qualitative and quantitative variations of its mineral content. Conducted by Drs. Karshan, Rosebury, and Hollander.

VI. Dietetics

¹9. Investigations as to the possibility of assimilation of mineral salts with special reference to those which may be found to be present in the dental lymph. (Problem 7.) Conducted by Drs. Leonard, McBeath, and others.

¹Io. Investigations of the feasibility of supplementing such salts found in natural foods by medication. Conducted by Drs. Leonard, McBeath, and others.

VII. Bacteriology

11. Investigations of the acid-forming bacteria found in the mouth. Conducted by Drs. Linton, Rosebury and Bartels.

(Respectfully submitted to the Committee of Dental Research of the School of Dental and Oral Surgery of Columbia University in the City of New York, August 19, 1929.)

It will thus be seen that should research in time discover a preventive for dental caries, through diet or otherwise, the finding would be of greater moment than appears on the surface. The teeth are a very vital part of the whole organism, sharing the same circulatory, nervous, and bony systems. (That this is not more generally considered in the study of disease—that a divorce between dental and medical education was ever possible—reveals one of the inexplicable blind spots in human thinking.) Any agent which considerably affected decay of the teeth would inevitably have highly beneficial systemic effects. Successful research into this problem is fraught with many more possibilities for good than appear at first thought.

The University of Rochester and Yale University have recently received grants of \$125,000 each for dentistry from the Rockefeller Foundation. Both appropriations are to be used *through medicine*. At Rochester, "graduates in dentistry will be given opportunity to do research under favorable conditions," in the hope "to develop a group of men interested

¹ Problems which should be first attacked.

in research and teaching, whose work and teaching would be of benefit to dentistry and help in its further growth and development." At Yale the effort is

to develop a group of men who will serve clinical medicine in the capacity of oral pathologists or stomatologists. . . . They will be men who have a thorough training in the study of diseased states of the teeth and their surrounding structure and who will be willing to undertake the study of clinical medicine, in order that we may have their aid in attempting to understand the relationship between systemic disease and diseases of the teeth.

Care has been taken to see that the efforts of the three universities do not overlap.

DENTAL EDUCATION

These three large-scale experiments look very like the entering wedge for much-needed changes in dental education. The present scheme is both unscientific and wasteful. Five or six years are spent to train men in half a dozen techniques, when one, or two at the most, is all one man can usually master. Graduates become "doctors," though most of them lack the scientific education any doctor should have. As Dean Winternitz of Yale University Medical School remarked at a meeting on dental education at Columbia University last fall:

We have lived nearly a hundred years in the most perfect example of an absurd condition that could possibly be conceived of, namely, that dentistry should be an entity separated from medicine. It is inconceivable.

A great deal has been written about it, and everybody, I believe, who hasn't a vested interest in the matter will realize that it is not a situation that will continue very long.

[The student] can't learn anything about the teeth until the best medical schools develop focal centers of research in each one of their fundamental departments which have as their primary objective the role of the teeth in the economy of the organism.

The great need is for preventive dentistry, yet practically all schools are organized only to teach restorative procedures.

² The stimulating conference at which we heard Dean Winternitz was the first of a series it is planned to hold from time to time at Columbia on various phases of dental and medical education as they concern the dentist. The next meeting probably will deal with the status and training of the orthodontist.

Much of this teaching, even in some of the better schools, is done without the needed scientific basis. It often results in operations on the patient that do great harm. There is much false "research" and public advocacy by "doctors" of worthless powders, pastes, and other cosmetics. There is too little real science, and disinterested concern for the patient's health. (Cases received every day in the teaching clinic of the School illustrate locally the results of ignorant, even venal, operations.) Certain fields in present dental practice. notably orthodontia—and this is recognized by the best practitioners—are entirely out of place in the present dental curriculum. Orthodontia is a branch of orthopedic surgery. There is no logical reason to require an orthodontist to learn to fill teeth, make bridges, and construct artificial teeth. There are many for requiring of him a sound medical, anatomical, and surgical training, with emphasis on the oral region, and a subsequent familiarity with dental restorative procedures. In fact, every "doctor" of dentistry should ideally be required to earn his right to that title through medicine, like any other bona fide specialist. It is urged that this can just as well be done outside medicine—that we should preserve the glorious independent institution of American dentistry. It could, perhaps; but without a vastly improved moral and educational tone within the organized profession it certainly will not. A responsible attitude, however, prevails in the Committee on Medical Education of the American Medical Association. This body inspects and rates medical schools and practically dictates their policies. Reputable dental schools would be vastly better off if their status depended on an examining body of this relatively responsible grade. The present situation in dentistry is in painful contrast. Politicians, always to be found in any group, are too much in the saddle, and the rights of the public to scientific oral care suffer, as always, in consequence. If dentistry were to become a recognized specialty in medicine, it would automatically advance in educational and ethical standards at least as far as medicine has gone.

I do not mean to state that every operator in the mouth

should become a full-fledged specialist. In dentistry more than elsewhere in the realm of medicine there is obviously possible differentiation of function. There should be training on varying levels, as Dean Winternitz points out, for the various operations.

I know what is going to be said right away: "Yes, but these fellows, after they get into this elite group of medical men, after they are superdentists, so to speak, and have got an M.D. degree, don't practice dentistry." I don't believe that this need be true. The reason I don't believe it is because dentistry has taken the forward step already in not making it necessary for the dentist to do everything that a dentist of fifty years ago did. And medicine is following in the wake.

Different levels of education are being recognized. A real surgeon must be, in the first instance, a doctor, not an operator. In the second instance, he may be a therapeutic specialist, but he doesn't make his gauze sponges; he doesn't give his anesthesias; he doesn't make the casts and braces and other things that are necessary in his work. He doesn't even make the clamps with which he clamps off blood vessels, because those things have been relegated to people who can do them without being taught surgery or medicine, plus the therapeutic procedure of surgery. In medicine we have anesthetists and heliotherapeutists and physiotherapeutists, and brace makers, and a whole lot of other people who have come in because of the economic need of providing for the skillful medical man the wherewithal to carry out his work expeditiously.

And the dentist has done it even more. I asked some dentists not very long ago how many men a competent dentist could supervise, and the answer was "Oh, twenty, with the greatest ease."

If this is true under present chaotic conditions, it is equally true that with a highly trained doctor-type—a diagnostic type—many more assistants could be kept busy. It would be somewhat more expensive to educate such a doctor. The men under him, however, could be trained quickly and in large numbers. If they were taught in laboratories under university supervision they would be a more responsible group than most of those now operating. As it is, commercial dental laboratories do from sixty to ninety per cent of the restorative work used in the mouth. It is often at an exorbitantly high cost to the patient. The regulation and extension of this system, with the doctor-type of dentist responsible, would result in more and better work at a lower cost to the public. Legal prohibition of diagnosis except by such qualified

practitioners would also prevent untold misery. Many patients now suffer unnecessary local and systemic ills due to the ignorance and callous indifference of ill-prepared dentists. The hope for adequate scientific dentistry lies in the endowment of schools equipped to carry out such an educational experiment. I believe it is perfectly possible to evolve a workable scheme that will result in much wider dental service than is now furnished the public, of a better quality, and at a reasonable cost. (See *Education on Varying Levels*.)

While considering dental education I wish to comment on a recent article on the subject by Dr. William J. Gies. This is in the twenty-fourth annual report of the Carnegie Foundation for the Advancement of Teaching. The article contains statements which, in my opinion, are open to question. They read:

In disagreement with the prevailing views among dentists and physicians are recent efforts of several "stomatological" societies to bring about conversion of dental practice into a specialty of statutory medical practice; also a report by a committee on dental education of the Association of American Universities, at the meeting in November, 1928, which reads in part as follows:

"Your committee believes that the only hope for dentistry lies in its restoration to its former status of a specialty in medicine, with the ultimate incorporation of existing schools of dentistry into the better medical schools. The moment for this is actually arriving; for instance, the Commission on Medical Education is calling urgent attention to the changes and readjustments necessary in the undergraduate [medical] curriculum."

The report containing this statement was presented to the Association, although not with unanimous approval, for a committee of four, consisting of deans of two dental schools, the dean of a medical school, and the president of a university containing a dental school. The report was "received," not adopted by the Association, and the Committee discontinued, but the quotation reflects responsible opinion.

In December last I wrote all the deans of medical schools in the United States and Canada citing a statement by Dean Winternitz unequivocally advocating dentistry as a specialty in medicine, and asked their views. The forty-two replies received included those from deans of all the leading schools. Several felt that universities should not make dental technique,

as it is often taught at present, a part of a university curriculum. None of them disagreed *in toto*. Practically all agreed cordially with the main thesis. Moreover, I know personally a great many dentists, among the best trained and most intelligent of the profession, and a great many leading physicians, who favor the ultimate inclusion of dentistry in medicine. There is by no means an altogether "prevailing view" against such an eventuality.

As the author of the cited report to the American Association of Universities, I wish to comment on the implied interpretation. In 1924 Dr. Gies, in a speech before the annual meeting of the Association, suggested the appointment of a standing committee on dental education. A committee was appointed of which I was a member and later the chairman, the original chairman, Dr. Gies, having resigned from the committee. It was well understood by the committee, as the work progressed, that it would probably be discontinued; the effort to standardize dental education, especially in the graduate phase, seemed premature. (The Association was primarily concerned with graduate problems.) There was no other expectation, when this report was sent in, than that the work of the committee was done. The minutes of the Thirtieth Annual Conference of the Association state:

It was moved that the report be made part of the records. . . . The Committee [on Nominations]. . . . recommended that the Committee on Dental Education, having served its purpose, be discontinued. [Italics mine.]

Other members forwarded their comments on the report too late to be written in before the date when it was to be presented. (These were sent on their receipt to the secretary of the Association for inclusion if it were desired.) The report, therefore, embodies my own "responsible opinion," which I gladly acknowledge.

Owing to the political use that has been made of the phrase, "the moment is actually arriving" I should like to give it with some of its context, which rather materially changes the interpretation so widely circulated to the effect that Columbia would immediately overthrow all existing institu-

tions in dentistry—an obvious impossibility, even were it desired. The paragraph reads as follows:

The past year has shown striking developments in dentistry on the theory that it is a specialty outside "the conventional practice of medicine." Events tend more and more to show that actually the only hope of a disinterested "health service" on a par with that offered by other specialties lies in the stringent exaction of equal preparation for dental students with students in other specialties and under the same auspices. Disinterested "moral support" cannot be generally looked for. Temptation to profit by the student, except where such profit is impossible, is still too strong. This place is obviously in the better recognized universities, where, and with possible exceptions, where only, can be had the admittedly essential opportunities for "cultural education" of the first order. Your Committee believes that the only hope for dentistry lies in its restoration to its former status of a specialty in medicine, with the ultimate incorporation of existing schools of dentistry into the better medical schools. The moment for this is actually arriving; for instance, the Commission on Medical Education is calling urgent attention to the changes and readjustments necessary in the undergraduate curriculum.

Doubtless this last sentence, if there had been time to write anything but a very hurried document, could have been more clearly expressed, but as it stands hardly justified the distorted interpretation so widely circulated. If the paragraph be taken with the entire report, as in fairness it should be, such an interpretation is not justified at all.

Another statement in Dr. Gies' article that in my opinion is seriously open to question is that

While grave doubt exists in universities regarding the desirability of separate organization of dental schools, there will be unfortunate conflict of purpose in the training of practitioners of dentistry, and also serious impairment of efforts to secure adequate endowment of dental education.

I think the results of the questionnaire cited above tend to show that probably less than the suggested degree of "doubt" on an educational question of such import exists in universities. Furthermore, I have had a great many university presidents express themselves to me as in favor of such a change.

I also question the implication that "serious impairment of efforts to secure endowments of dental education" will result from an advocacy of the ultimate inclusion of dentistry in medicine. On the contrary, the largest grants I know to have been made for dental education (the three already described) have been given for use *through medicine*. It is logical to expect that endowments will be made on a similar basis.

EDUCATION ON VARYING LEVELS

As I have stated, it is possible to educate a sufficient number of men of various types to care adequately for the dental needs of the public at a smaller expenditure of time and money than is now being made. At present, notwithstanding the large sums spent on dental education, only a small percentage of the people are getting any dental service. (Estimates I have seen range from eight to fifteen per cent. A much smaller fraction is receiving scientific skilled care.) This change, obviously, will be evolutionary, not revolutionary. There are signs that a revision of the whole field of medical practice is likely to occur before many years, as a result of the findings of several agencies now at work. These deal with both the present practice of medicine and the more fundamental question of medical education. Among the most important are the Council of Medical Education and Hospitals of the American Medical Association, the Commission on Medical Education, the Committee on the Costs of Medical Care, and the Committee on Economics of the American Medical Association.

Recently eight medical schools have reorganized their former course of four academic years to one of three calendar years, in order to release students earlier for the practice of their profession.

In Germany the distinction between the technician in dentistry and the true doctor of dentistry has long been recognized. The latter is a graduate of a university and a degree is voted by the medical faculty. The former is the product of a short technical training, and is known as a technician. American dentists practicing in Germany, unless they have other than their dental degrees, fall in the latter class.

A significant reform in medical education has been made this year in the Ukraine. Since the Russian revolution in 1917, medical and dental education in this district has undergone several reorganizations. According to an article in the Journal of the American Medical Association³ dated June 1, 1930, from Odessa, the reorganization of 1930 leaves four "institutes for the protection of the people's health" under the jurisdiction of the People's Commissariat of Health. The course in all four "institutes" now comprises four years instead of five, as formerly. These

will turn out intensive specialists instead of general practitioners as before . . . each institute . . . will be divided into four faculties: medical, sanitary-prophylactic, odontologic, and security of mother and childhood [gynecological].

Students will begin to specialize from the third year of training. More attention will be given to practical studies, which will last throughout the year. From the third year the students must pass their two months of vacation in the country hospitals learning the technic of medicine and getting acquainted with the conditions of work and life in the village and with the work of a doctor in the "country medical district."

Students will be received in the institutes three times a year, so that studies will continue throughout the year without interruption. These institutes, like other high schools of the Ukraine, will be conducted on the full-week plan. Every fifth day is a holiday, whether or not it is a Sunday, a church holiday, or a simple week day. But the work goes on uninterruptedly. There is no general holiday, with the exception, of course, of five state holidays, each group having its own rest day.

It will be noted that odontology (dentistry) is assumed to be a division of medicine. The last paragraph is of interest as a parallel to the reorganization, already noted, of certain American medical and dental schools on the basis of calendar rather than academic years for study. One project of the above named American commissions and committees, also, is to reduce the medical course to its essentials.

Somewhere in this educational evolution, dentistry is bound to find its proper niche. Many members of the profession are awake to their opportunities. Last year one of our graduates asked me at Commencement, "Why do not we take the Hippocratic oath?" This year I was several times

³ Vol. 95, No. 3, dated June 1, 1930.

asked the same question. Graduate students at the School are alert to the changing situation with its larger future, and react finely to their increased responsibilities. It might be the graceful thing for the profession at large to have ready some workable scheme of its own, rather than to have one thrust upon it.

One plan for a future experiment in educating for dentistry on varying levels is suggested below. It is based on figures from an exhaustive survey made in 1929, by the Committee on the Costs of Medical Care, of Shelby County, Indiana.4 This is a representative county for the purpose, with a highgrade manufacturing and agricultural population of 27,000. Shelbyville, the largest city, also the county seat, has about 10,600 people. This town is within twenty-seven, and a hundred miles, respectively, of Indianapolis and Cincinnati. There are thirteen resident dentists, twelve concentrated at the county seat, and two visiting dentists. These spend one day a week each in the town. Six of the resident dentists attended a three-year dental course, and seven, a four-year course. About one-half of the dentists have graduated within the last eight years. One of them has attended an advanced course in dentistry for six weeks since graduation—the only additional training that can be credited to the group. One holds an A.B. degree in addition to the D.D.S. Seven of them are members of state and national dental organizations, six are not. There is no county dental society. One dentist advertises in the local paper.

All of these men are engaged in general practice with no specialization. Every dentist extracts teeth, and makes dental appliances and substitutes, such as crowns, bridges, and artificial dentures. The dentists, however, restrict their activities in some respects. Seven perform no dental surgery, nine do not undertake orthodontia, two do not treat pyorrhea, one does not do perodontia. None of them has equipment for work which requires the baking of porcelain; eleven have

^{&#}x27;A survey of the Medical Facilities of Shelby County, Indiana, 1929, by Allon Peebles, Ph.D. The Committee on the Costs of Medical Care, 910 17th St. N.W., Washington, D. C.

no X-ray equipment. Work on the gum and mouth tissues is mainly confined to Vincent's angina, trench mouth, and other mouth infections. Complicated cases of dental surgery, nearly all the orthodontia, a large part of the pyorrhea cases, and some of the radiography, are referred to Indianapolis. Much of the mechanical laboratory work needed is done by the dentists themselves. Bacteriological laboratories are rarely used. Some of the dentists stated that if syphilis or some other systemic disease were suspected, the patient was referred to a physician.

X-ray work is shockingly inadequate. The following table shows the low percentage required:

	PERCENTAGE OF PATIENTS	
DENTIST	FULL-MOUTH X-RAY	ANY X-RAY
	per cent	per cent
No. 1	I	10
No. 2	3	10
No. 3	o	1
No. 4	1/4	very small
No. 5	less than I	4
No. 6	0	1-3
No. 7	2	10
No. 8	2	5
No. 9	I	4
No. 10	0	0
No. 11	0	1
No. 12	I	no data
No. 13	0	5

Estimates of the time spent at the chair and in various forms of laboratory work range from thirty-six to fifty-two and one-half hours a week. Six of the dentists estimated the time spent with patients at from three to five hours, seven at from five and one-half to eight hours a day.

There is too little evidence of coöperation between dentists and physicians. Though the dentists have a standing invitation to the meetings of the County Medical Society, only three ever attend.

Extraction and amalgam fillings are the commonest types of dental service. Nine-tenths of the industrial workers

are said to come only for relief of pain. These patients, because of the cost, have little restorative work done. One practitioner said that young unmarried people sometimes get bridges and inlays, but that parents of working-class families do not. Farmers more often replace extracted teeth with bridge and plate work. Children are, generally speaking, neglected until pain compels them to visit the dentist, except in the more prosperous families. They are not as a rule brought early enough to save the important six-year molars.

In spite of the fact that there is relatively little free work or work done at reduced rates, incomes are not high. When the office rent, cost of supplies, assistants' wages, and other similar items are deducted from the gross income, the table is as follows:

Five dentists								\$500 to \$1,499
Five dentists								2,500 to 3,499
Two dentists								3,500 to 4,499
One dentist								4,500 to 5,499

So much for a rough sketch of a fairly typical situation. Other localities, naturally, have much better facilities; still others, unfortunately, have much worse. It will be admitted that for both patients and practitioners there is room for improvement.

In the following estimate I shall abandon Shelbyville figures and speak in terms of present-day education, using the Shelbyville community only for partial analogy. In giving comparative figures for a consideration of future needs, it is practicable to assume both groups of men to be educated in institutions of similar high grade. The costs, here estimated on a local basis, will obviously vary somewhat with localities and individuals, but the principle will not change. Though conservative, the estimate is necessarily rough and incomplete. From long practical experience, however, I am convinced of its essential soundness.

At present it takes thirteen dentists (ignoring the visiting men) to serve perhaps 15 per cent of a population of 27,000. The service, to judge from X-ray statistics and other items of the report, is far from scientific. To educate thirteen

dentists locally under the present scheme of two pre-professional and four professional years represents roughly an average cost to society of \$3,500 per student, annually. (This includes all expenses of the student, with a low arbitrary figure of \$300 annually for clothes, railroad fare, and personal expenses. Board, books, and instruments are estimated at minimum rates in a university community. Tuition is listed at its cost to the university.) Thirteen men represent seventy-eight years of such training, or an outlay for education of \$273,000. These graduates will occupy thirteen separate offices. An expert in dental economics gives the cost of adequately equipping a modern office at \$5,000. The expenditure for setting up all these men in practice is \$65,000. The total outlay for educating and establishing thirteen dentists is then \$338,000.

Let us take an alternative plan. To educate one doctor, under present requirements, with both medical and dental training, takes eight years. (This, as I have stated, is wasteful, and is certain in time to be reorganized to permit a much less expensive course.) It costs approximately \$25,000. Such a man could easily do the important medical and surgical work for this community. He could direct and keep busy at least twelve assistants of various types. These need only the minimum common school training required by law. They can be technically trained in one year or less. Because they become productive very soon after entering their respective courses, the cost of their education is light—perhaps \$1,500 each, or \$18,000 for the twelve. The total cost of educating these thirteen people is then \$43,000 as against \$273,000 for thirteen dentists. The expense of equipping an adequate center for their operations would vary so greatly with local conditions that I shall not attempt to give an estimate. For example, in some communities we might find coöperation with local hospitals more economical than setting up new units. Others would have different needs and possibilities. In any case, the cost would be well under \$65,000, that of setting up thirteen dental offices.

I am convinced, moreover, that such a group, or small clinic,

could serve many more people than at present and at lower rates. Allowing the doctor-dentist a salary of \$7,000 and the twelve assistants an average salary of \$2,400, the total expense for salaries becomes \$35,800. This is a liberal allowance. The doctor would receive more than all but three of the thirty-two physicians in the community receive, and possibly more than all but one. (Two doctors' incomes are listed as from \$6,500 to \$7,499.) He would receive \$1,500 more than any dentist. The total net income of the thirteen dentists in 1928 is given as \$36,675. Hence the cost to the community in fixed salaries for such a group is practically the same as the cost under the present unsatisfactory arrangement. Operating costs of such a center would be considerably less than those of thirteen individual offices. But enough has been said to show the obvious advantage to the community of such a reorganization.

Now for the dentists' side. There is at present widespread opposition in organized dentistry to the clinic idea. The Columbia University teaching clinic, for example, has been attacked within the year by a local dental society. According to a published account the Rosenwald Foundation has offered to cooperate with the organized dental profession in Chicago and New York in establishing pay clinics for the "whitecollar class," in order to experiment with the thesis that better and less expensive service can be given, without having its offer accepted. Yet it is hard to see why dentists oppose such plans. In the group scheme outlines, there would be a possible place for five of the thirteen dentists of the county at a handsome gain in income. Five others could come in at an apparent possible loss of from \$100 to \$1,499. Actually they could probably fit into the higher paid technical positions with no loss. If the average income of the New York dentist, as I have been responsibly informed, is less than \$2,000, would not this dentist prefer some form of group work, with an assured salary higher than his present precarious income? In a nation-wide scheme of such elasticity there would be a place for every qualified man. With the unqualified, and those who will not qualify, in the vital realm of public health. I do not see that society need concern itself.

One who knows anything of the history of professional education must deem it worse than illogical to intrust any phase of it to less responsible bodies than the recognized great universities. It is only there that one can depend on finding the pure sciences disinterestedly and adequately studied and taught. Several large dental schools now operating have superficial university connections; yet the fundamental sciences are taught, not in the medical or academic departments, but in the dental school. In some instances four or even more such sciences are taught by the same man. It is difficult to imagine a man sufficiently trained and endowed to offer such a variety of courses of true university grade. Results show that this science teaching is often of less than respectable high-school caliber. Since the greatest incidence of disease is in the mouth, and, owing to the extremely vulnerable nature of the tissue, breakdowns occur there first, it would seem that the need for responsible, first-rate scientific and biologic teaching fairly leaps to the eye. With dentistry left to its own devices the past century, emphasis has been too much on the restorative phase. There is little reason to believe that as long as it remains detached from medicine it will produce any other type of practitioner. This view is reinforced by a quotation from the second annual report of the Commission on Medical Education:

It is important that the special fields of practice shall not be isolated and self-sufficient and probably this can be accomplished best by having specialized training based only on a broad foundation of general medical knowledge. It is becoming more fully recognized that the health needs of the public can be met most satisfactorily by a balanced coöperation between physicians trained in and practicing general medicine and specialists whose training has qualified them for certain technical procedures required by some patients.

ENDOWMENT

The School of Dental and Oral Surgery of Columbia University feels that its close affiliation with the College of Physicians and Surgeons, and its hourly contacts with the clinics and hospitals of the Medical Center, peculiarly fit it for work outside the routine training of dentists. While noteworthy

contributions have been made to the endowment fund of the School, there is still need of a substantial fund to place it on a solid financial basis. This would permit needed expansion of teaching space, the extension of work already begun, and the initiation of other important tasks. The training of dental teachers and research workers should be extended. Systematic training of promising men in both fields is an urgent need. The shortage is felt in every high-grade university. The School of Dental and Oral Surgery of Columbia University given the needed financial support, could well demonstrate the potential usefulness of the above-described scheme for dental education on varying levels. This experiment is of great direct moment to a public suffering from the lack of skilled dental care and diagnosis at a price it can afford. Contacts made during the year with various influential foundations encourage us to believe that ultimately the wider view of dental education and its duty to the public will secure the needed support.

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"Diagrammatic Recording of Periodontal Disease," address before the International Association for Dental Research, New York Section, March 13, 1930. Abstract published in *Journal of Dental Research*, June, 1930.

"Relationship between Migrating Teeth and Inflammatory Tissue in Pyorrheal Pockets," address before the joint session of the International Association for Dental Research and the American Association of Dental Schools, Toronto, Canada, March 25, 1930. Abstract published in *Journal of Dental Research*, June, 1930.

Leonard, Harold J.: Discussion of the papers of Drs. R. M. Cecil and L. M. S. Miner on "The Interrelation of Medicine and Dentistry," before the New York Academy of Dentistry. *Journal of Dental Research*, April, 1930.

"The Present Status of Preventive Dentistry," address before the Preventive Dentistry Section of the First District Dental Society. Bulletin of the First District Dental Society of New York, June, 1930. Chapter on dentistry, American Year Book for 1929. Publisher, American Year Book Corporation, New York.

Mavrocordato, Themis: "Ethyl Chloride Anesthesia in Oral Surgery,"

Dental Items of Interest, May, 1930.

"Infection of Teeth and Heart Diseases" (written in Greek), Greek National Herald Almanac for 1030.

Owre, Alfred: Discussion of the papers of Drs. R. M. Cecil and L. M. S. Miner on "The Interrelation of Medicine and Dentistry," before the New York Academy of Dentistry. *Journal of Dental Research*, April, 1930.

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"The Ideal of Dental Education," Dental Violet, Annual of New York

University, 1930.

Discussion of Dr. F. B. Noyes' paper "Undergraduate Teaching of Orthodontia" before the Eastern Association of Graduates of the Angle School of Orthodontia, New York, January 27, 1930, *Dental Cosmos*, May, 1930.

"Dentistry at Columbia," Dental Review, June, 1930.

"Dentistry in Medicine," Dental Survey, June, 1930.

Schroff, Joseph: "Primary Mouth Manifestations of Skin Diseases," Journal of Dental Research, April, 1930.

"Some Facts and Fallacies of Oral Diagnosis," Dental Items of Interest, June, 1930.

Tracy, William Dwight: "Periodontia and Its Obligations, from the Point of View of the General Practitioner," Journal of the American Dental Association, March, 1930.

Waugh, Leuman M.: "Study of the Nutrition and Teeth of the Eskimo of North Bering Sea and Arctic Alaska," address before the International Association of Dental Research, annual meeting, Toronto, Canada, March 26, 1930. Abstract published in the *International Journal of Dental Research*, June, 1930.

Zimmer, Morris A.: "Dry Socket: a Clinical Study and Method of Treatment," *Dental Cosmos*, December, 1929.

"Care in Exodontia," International Journal of Orthodontia, Oral Surgery and Radiography, March, 1930.

"Post-Operative Care in Exodontia," Dental Cosmos, June, 1930.

"How Important Is Post-Operative Care in Exodontia?", New Jersey State Dental Journal, June, 1930.

UNPUBLISHED PAPERS AND ADDRESSES

Berger, Adolph: "Changing Views on Dentistry," before the Hudson County Dental Society, December 7, 1929.

"Local Anaesthesia in Dentistry," address before the Rhode Island State Dental Society, January 15, 1930.

"Diagnosis of Swellings of the Face and Jaws," address before the Kings County Dental Society, February 19, 1930.

"Differential Diagnosis of Pathological Lesions about the Face and Jaws," address before the Rhode Island State Dental Society, March 12, 1930.

Discussion of Dr. Baer's paper on "The Obligations of the Specialist to the General Practitioner," before the Oral Surgery Section of the First District Dental Society, March, 1930.

Birenbach, Samuel: "Some Problems in Exodontia and Their Solution," read before the Eastern Dental Society of Philadelphia, November 7, 1929.

"Exodontia in the Routine of a General Practice," read before the Passaic County Dental Society, Patterson, New Jersey, February 17, 1930.

Discussion of Dr. George I. Miller's paper, "Epitheliomas of the Lip," Unity Hospital, Brooklyn, New York, April 14, 1930.

Bodecker, Charles F.: "The Vindication of Prophylaxis," read before the American Dental Association, Washington, D. C., October 9, 1929. "A New and Practical Theory of Dental Decay," read before the Second District Dental Society, Brooklyn, New York, November 11, 1929.

"Concerning Faults in Dental Enamel of Ancient American Indians," read before the International Association for Dental Research, Toronto, Canada, March 24, 1930.

"A New Theory of the Cause of Dental Caries," read before the New York Academy of Dentistry, June 10, 1930.

Bodecker, Charles F. and Edmund Applebaum: "Prevention of Dental Caries," read for the Fifth District Dental Society Silver Anniversary, Atlanta, Georgia, March 21, 1930.

"Study of the Validity of Advertised Claims for Dental Products. Third Report: On Tooth-Cleaning Fluids Sold to the Public," read before the New York Academy of Dentistry, April 24, 1930.

"Remineralization of White Spots in Enamel," read before the American Society of Orthodontists, Nashville, Tennessee, April, 1930.

"Effect of Filling Materials upon the Teeth," read before the Dental Society of the State of New York, May 14, 1930.

Cahn, Lester R.: "The Role of Epithelium as a Protection against the Penetration of Microörganisms," address before the First District Dental Society, December, 1929.

"Pathology of Peri-apical Disease," a part of a symposium on the pulpless tooth problem, given before the Faculty of the School of Dental and Oral Surgery of Columbia University, April, 1930.

"Oral Pathology," address before the Kings County Dental Society,

April, 1930.

Diamond, M. Address before the regular March meeting of the First District Dental Society relative to the resolutions regarding the Columbia University Service Clinic.

Dunning, Henry Sage: Paper before the nose and throat meeting of the Academy of Medicine, October 23, 1929.

"Anesthesia in Oral Surgery," address before the Stomatological Society, October 29, 1929.

"Diseases of the Mouth and Jaws," Queens County Meeting, Jamaica. Periodic health examination, November 15, 1929.

"Diseases of the Mouth and Jaws," Academy of Medicine. Periodic health examination, November 18, 1929.

"Diseases of the Mouth and Jaws," symposium, Brooklyn. Periodic health examination, November 19, 1929.

"Neoplasm of the Mouth and Jaws," address before the Harvard Odontological Society, December 18, 1929.

"Cysts and Tumors of the Jaws," address before the Chicago Dental Society, January 13, 1930.

"Inflammation of the Mandibular Nerve and Treatment," address before the Faculty of the School of Dental and Oral Surgery, Columbia University, February 6, 1930.

Discussion of paper regarding removal of teeth. Second District Dental Society, March 10, 1930.

"Focal Infection," address before the New York Academy of Medicine, Ophthalmology Section, and the New York Academy of Dentistry, April 3, 1930.

"The Field of Oral Surgery," address before the Springfield Medical

and Dental Society, April, 1930.

"Some Phases of Oral Surgery of Interest to the General Practitioner," address before the Third District Dental Society, Albany, New York, April 15, 1930.

"Oral Conditions in Health and Disease," address at Heckscher Insti-

tute, May 23, 1930.

Gillett, Henry W.: "Cavity Preparation for the Gold Inlay," address before the First District Dental Society, October, 1929.

"Inlay Margins," address before the Jarvie Society, Columbia Uni-

versity, February, 1930.

"Mouth Infections and Their Relation to Eye Diseases, Viewpoint of a General Practitioner of Dentistry," address before the New York Academy of Medicine, Opthalmology Section, and the New York Academy of Dentistry, April, 1930.

Hartman, Leroy L.: "The Relation of Operative Dentistry to Diseases of the Periodontium," address before the American Dental Association, Washington, D. C., October, 1929.

"Various Methods Used in Reëstablishing Contours in the Filling of Teeth," address before the Massachusetts State Dental Society, Boston,

Massachusetts, May, 1930.

Hirschfeld, I.: "Medicinal Treatment of Pathologic Gingival Conditions," address before the Newark Dental Club, Newark, New Jersey, September 19, 1929.

"Food Impaction," address before the American Academy of Periodontology, Washington, D. C., October 4, 1929, as a contribution to the annual report of the Committee on Scientific Investigation.

"Traumatic Occlusion as a Factor in Pyorrhea," two lectures before the Eastern Dental Society, Study Section, December 20 and 27, 1929. "The Dental Assistant in the Office of the Periodontist," address before the Dental Assistants' Association of Northern New Jersey, Newark, New Jersey. February 18, 1930.

"Food Impaction," address before the Virginia Tidewater Association,

Norfolk, Virginia, February 20, 1930.

"Diagnosis and Prognosis in Periodontal Disease," address before the Virginia Tidewater Association, February 20, 1930.

"Diagnosis and Prognosis in Periodontal Disease," address before the Richmond Dental Society, Richmond, Virginia, February 25, 1930.

Leonard, Harold J.: Discussion of Dr. W. B. Avery's paper on "Scientific and Biological Principles of a Scissor-Bite Denture Technic," before the Prosthetic Section of the American Dental Association, Washington, D. C., October 10, 1929.

"The Present Status of Preventive Dentistry," address before the teaching staff of the School of Dental and Oral Surgery of Columbia

University, February 6, 1930.

Discussion of the proposed resolutions of the First District Dental Society of New York condemning the clinic of the School of Dental and Oral Surgery of Columbia University, March 3, 1930.

Paper in a symposium on "Coöperation of Physician and Dentist in

the Recognition of Disease," joint meeting of the Second District Dental Society of New York and the Kings County and Queens County Medical Societies, March 10, 1930.

"Oral Diagnosis," address before the dental staff of the Glen Cove

Hospital, April 1, 1930.

"The Training and Uses of the Dental Hygienist," paper for the New

England Health Institute, April 17, 1930.

"Why Should Teeth be Extracted? Viewpoint of Oral Diagnosis and Periodontia," paper for the teaching staff of the School of Dental and Oral Surgery of Columbia University, April 30, 1930.

Paper in a symposium, "Dietary Factors Concerned in the Building

and Maintenance of Teeth; the Viewpoint of Preventive Dentistry and Dental Research," before the American Stomatological Association, May 6, 1930.

"The Training and Uses of the Dental Hygienist," address at the graduation exercises of the School for Dental Hygienists of Columbia

University, May 27, 1930.

Discussion of Dr. A. F. Hawkins' paper on "Rational Technic for Control of Dental Caries and Systemic Pyorrhea," before the Philadelphia Dental Society, June 6, 1930.

Owre, Alfred: Talk on "Dental Education," prefatory to Dean M. C. Winternitz' address on "Dentistry and Medicine," before the Faculty of the School of Dental and Oral Surgery of Columbia University and others vitally interested in dental education.

Discussion of paper by Dr. Adolph Berger on "Changing Views on Dentistry," read before the Hudson County Dental Association, Decem-

ber 7, 1929.

"The Education of the Dentist," address before the Associated Physicians of Manager (New Jorges) Manager 20, 2002

cians of Montclair (New Jersey), March 28, 1930.

Discussion of the following papers presented at the annual meeting of the American Association of Dental Schools, Toronto, Canada, March, 1930: Dr. Henshaw's paper, "Dental Education in Relation to the Cost of Dental Service"; Dr. Lilja's paper, "Diagnosis." Part in conference on teaching hygienists.

"Is Dentistry at the Crossroads?", address before the Eastern Association of Graduates of the Angle School of Orthodontia, New York, May 5, 1930.

Discussion of Dr. Charles H. Tweed's paper, "Arizona's Efforts to Elevate the Status of Orthodontia," before the Eastern Association of Graduates of the Angle School of Orthodontia, May 6, 1930.

"The Future of Dentistry," address before a dinner meeting of the Unity Hospital Dental Staff, Brooklyn, New York, May 15, 1930.

Schroff, Joseph: "Some Further Studies on the Pathology of the Incisor Foramen and Nasopalatine Region," address before the William Jarvie Society for Dental Research, May 2, 1930.

Tracy, William Dwight: Discussion of Dr. C. N. Johnson's paper, "Operative Dentistry as It Should be Practiced," before the Kings County Dental Society, October, 1929.

Discussion of Dr. Norman Nesbitt's paper, "Empiricism in Dentistry," before the American Dental Association, Washington, D. C., October, 1929.

"Dentistry as a Calling—Its Privileges and Obligations," address before the Connecticut State Dental Society, April, 1930.

Discussion of Dr. John V. Mershon's paper, "Orthodontia and Its Relation to Dentistry," before the Dental Society of the State of New York, May, 1930.

Waugh, Leuman M.: "The Orthodontic Duty of the Dentist to His Patient," address before the annual meeting of the American Dental Association, Washington, D. C., October, 1929.

"The Nutrition and Teeth of the American Eskimo," address before the Philadelphia Stomatological Society, December, 1929.

"The Nutrition and Teeth of the American Eskimo," address before the Ohio State Dental Society, annual meeting, Columbus, Ohio, December, 1929.

"The Nutrition and Teeth of the Alaskan Eskimo," address before a joint meeting of the Dental and Medical Societies of Springfield, Massachusetts, December, 1929.

"The Nutrition and Teeth of the Alaskan Eskimo," address before a joint meeting of the New Haven Dental and Medical Societies, New Haven, Connecticut, January, 1930.

"The Nutrition and Teeth of the Alaskan Eskimo," address before the annual meeting of the Alumni Association of the University of Buffalo, February, 1930.

"Study of the Nutrition and Teeth of the Eskimo of North Bering Sea and Arctic Alaska," presented to the United States Public Health Service at a meeting of the United States Coast Guard, Washington, D. C., February 5, 1930.

"Study of the Nutrition and Teeth of the Eskimo of North Bering Sea and Arctic Alaska," address before the New York Academy of Dentistry, March, 1930.

"The Dentition of the Alaskan Eskimo," address before the New York Society of Orthodontists, March, 1930.

"The Dentition of the Alaskan Eskimo," address before the Dental Hygienists' Association of the City of New York, March, 1930.

"The Dentition of the American Eskimo," address before the Connecticut State Dental Society, Stamford, Connecticut, April, 1930.

"The Nutrition and Teeth of the Alaskan Eskimo," address before the Maryland State Dental Society, Baltimore, Maryland, April, 1930. "Diagnosis and Classification of Malocclusion," educational courses before the Dental Society of the State of New York, May, 1930.

Zimmer, Morris A.: "Post-Operative Care in Exodontia," address before the Tri-County Dental Society, Dover, New Jersey, December 4, 1929. "Post-Operative Care in Exodontia," address before the Plainfield Dental Society, Plainfield, New Jersey, December 18, 1929.

CLINICS

Applebaum, Edmund: "Enamel Fissures under the Microscope," Kings County Dental Society, October, 1929.

On "A New and Practical Theory of Dental Decay," by Charles F. Bodecker, Second District Dental Society, November, 1929.

Bartels, Henry A.: "Dental Bacteriology," Better Dentistry Meeting, First District Dental Society, December, 1929.

Birenbach, Samuel: "The Administration of Nitrous-Oxide Oxygen Anaesthesia for the Removal of Teeth," Northwest Dental Society, New York, October 22, 1929.

"Elevator Technique for the Removal of Teeth," Northern District Dental Society, the Bronx, January 31, 1930.

"Osseosector Technique in Bone Surgery," Eastern Dental Society, New York, February 6, 1930.

Diamond, M.: Lecture clinic, "Direct Inlay Patterns with Special Attention to the Tooth Reproduction," Kings County Dental Society, February, 1930.

Lecture clinic, "Use of Porcelain and Bridge Restoration," Eastern Dental Society.

Dunning, Henry Sage: "The Surgical Repair of Palatal Defects," table clinic, Chicago Dental Society, January 15, 1930.

Hartman, Leroy L.: Group clinic, Dr. Hyatt's Study Club, operative dentistry, American Dental Association, Washington, D. C., October, 1929.

Round table discussion on inlays, Eastern Dental Society, December,

"Fundamentals of Cavity Preparation," registered clinic, Better Dentistry Meeting, First District Dental Society, New York, December, 1929.

"Gold Inlays." Two-day teaching course, Massachusetts State Dental Society, Boston, Massachusetts, May, 1930.

"Gold Foil." One-day teaching clinic, New York State Dental Society, educational clinics, New York, May, 1930.

Hirschfeld, I.: Lecture clinic, "Periodontia with Special Emphasis on the Treatment of Suppurative Periodontoclasia," Second District Dental Society, Study Section, October 15, 1929.

"Differential Diagnosis and Prognosis in Periodontal Disease," (stereoscopic clinic). First and Second District Dental Societies, Better Dentistry Meeting, New York, December 10, 1929.

Course of six postgraduate lecture-clinics on "Periodontia," Allied Dental Council, January 21, 1930, ff.

"Treatment of Suppurative Periodontoclasia," Richmond Dental Society, Richmond, Virginia, February 25, 1930.

"Differential Diagnosis and Prognosis in Periodontal Diseases," (stereoscopic clinic). Connecticut State Dental Association, April 24, 1930.

Leonard, Harold J.: "Periodontoclasia; Diagnosis and Treatment," New York State Dental Society, May 12 and 13, 1930.

Mavrocordato, Themis: "Surgical Conservative Treatment of Pulpless Teeth with Chronic Apicoalveolar Lesions," Better Dentistry Meeting, First and Second District Dental Societies, New York, December, 1929.

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Schroff, Joseph: "Drugs Other than Anesthetics," Kings County Dental Society, Brooklyn, New York, February 5, 1930.

Tracy, William Dwight: "Gold Inlays by the Indirect Method," given before the American Dental Society of Europe, London, July, 1929.

Zimmer, Morris A.: "Dry Socket," American Dental Association, Washington, D. C., October 11, 1929.

"Dry Socket," First District Dental Society, New York, December 11, 1929.

Respectfully submitted,

ALFRED OWRE,

Dean

June 30, 1930

SCHOOL OF LIBRARY SERVICE

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to present the following report on the work of the School of Library Service for the academic year 1929–1930.

The total number of graduate students registered during the Winter and Spring Sessions was 235. Of this number 189 were first-year and fifty-four second-year students. The increase of sixteen over the preceding year was due entirely to the larger number of candidates for the Master's degree. Although the policy is to admit not over 160 full-time first-year students for the Winter Session, the total number necessarily fluctuates from year to year because of the variation in the number doing their work on a part-time basis and because an unpredictable number of candidates for the B.S. degree who begin their work in Summer Session choose to come back for a Spring Session rather than take two more Summer Sessions.

The 235 students came from thirty-seven different states, the District of Columbia, and three foreign countries. The eleven states not represented in the student body during the regular sessions are of course the less populous and relatively backward in library development. Most of them, however, send one or more students to the Summer Session. As is to be expected, the state contributing the largest quota was New York with a total of fifty-seven, thirty-nine of them being from New York City. This number is somewhat exaggerated of course by the fact that many students, particularly those on a part-time basis, give New York City as their home address, although in many cases their employment or residence in the city is more or less temporary.

A few figures will show that the student body is national in character. The largest number outside of New York came from Ohio which sent 16. Thirteen came from Pennsylvania, 11 from New Jersey, 10 from Illinois and Texas, 9 from Michigan, 8 from Minnesota, 7 from Massachusetts, 6 from California, Iowa, North Carolina, and Virginia, 5 from Indiana, Oregon, and Washington, 4 from Alabama, Connecticut, Kansas, Kentucky, Louisiana, Maryland, and South Carolina, 3 from New Hampshire, Oklahoma, South Carolina, Tennessee, and Wisconsin. Nine other states each sent one or two.

A total of fifty-four students, as against twenty-five for the preceding year, were registered for second-year work, all but three of them qualifying for the degree of Master of Science. Thirty-seven of these took less than the full program of fifteen points each semester, while two were registered primarily in Teachers College. Twenty out of the fifty-four completed the work required and received the Master's degree. Three of the twenty had received the Bachelor's degree from the University of Michigan, two each from Minnesota and Vassar, and one from each of the following: California, Franklin, Grove City, Iowa State, Lawrence, Mt. Holyoke, North Carolina, Oklahoma, Reed, Simmons, and Washington. Two had their academic preparation in foreign countries.

The fifty-one second-year students meeting all the requirements for admission as candidates for the Master's degree had received their general library training in the following schools: 12, School of Library Service; 8, University of Illinois; 6, New York State Library School; 4, Carnegie Library School, Pittsburgh; 4, University of Washington; 3, Library School of the New York Public Library; 3, Pratt Institute; 3, University of Wisconsin; 2, Simmons College; 2, Western Reserve University; 1, University of California; 1, Paris Library School; 1, Syracuse University.

The total number of students registered in University Classes during the Winter or Spring Session was 216, thirty-two of them being candidates for the professional certificate.

It occasionally happens that a candidate for the B.S. degree, because of a conflict of hours in his schedule or because of some other difficulty met with in arranging his program to complete the requirements for the degree, is permitted to register for a course in the certificate group in lieu of a prescribed or elective course in the graduate group. In certain cases a person who is eligible to become a candidate for the degree takes courses in the certificate group because he is employed in some local library and cannot attend day-time classes. Later he decides to become a candidate for the degree and desires credit for the certificate courses. In order to provide for all legitimate cases of this kind without ignoring the differences in the purposes and requirements of the two independent curricula, the Administrative Board in 1928 approved a policy which has since been adhered to. A student who has been admitted to the School as a candidate for the degree of Bachelor of Science may under certain conditions be permitted to receive credit towards the degree for work done in certificate classes. Each case is dealt with on its merits and such permission is granted only when the approval of the Director of the School of Library Service is secured in advance of registration for the certificate course. In addition. degree credit for certificate courses is subject to the following limitations: (1) The number of credits which a student may earn in certificate classes toward the B.S. degree may not exceed one-quarter of the thirty points required; (2) only those certificate courses may be offered for degree credit which are approximately parallel in scope and content with courses in the graduate curriculum; and, (3) to be entitled to degree credit a student who has taken the work in the certificate course must pass it with a grade not lower than B and pass the examination in the parallel graduate course with a grade of B or higher.

It is a fixed policy not to admit to the graduate classes as "special" students those who do not meet all the conditions required of candidates for the degree. In the Summer Session, however, a few applicants because of their obvious need for certain B.S. courses, or because late application has not

permitted their eligibility to be finally determined, are permitted to take certain B.S. courses as "non-matriculated" students or as candidates "provisionally" for the degree. Such a permission is not allowed to create a presumption that the student will be permitted to continue his work and receive the degree if he is not found to be fully qualified. A few applicants of exceptional merit who are not eligible for the professional degree because their Bachelor's degrees, or their equivalent in foreign countries, are from institutions not on the list approved for admission to the Graduate Faculties at Columbia, have been permitted to follow the degree curriculum, the professional certificate instead of the degree being awarded on completion of the prescribed program. This has come to be the normal procedure with Scandinavian students who offer only the examen artium instead of the Bachelor's degree from an approved American college. A considerable number of students came to the New York State Library School and to the Library School of the New York Public Library from Norway, Sweden, and Denmark, and now they come in increasing numbers to the School of Library Service. At first, graduates of a Scandinavian gymnasium who had passed their examen artium were admitted as candidates for the professional degree. The Director of Admissions decided in 1928, however, that the examen artium could not be accepted as the equivalent of an approved Bachelor's degree. Since that date acceptable applicants with only this credential have been admitted to the degree courses, but they receive the certificate instead of the degree. If they have had not less than one year of study in the faculty of philosophy of a university they are permitted to enter as candidates for the degree.

The third Summer Session in which the School has participated established beyond doubt the fact that library workers are eager to take advantage of an opportunity to secure full professional training by working through a series of brief Summer Sessions. Exactly four hundred students took library service courses in the 1929 Summer Session, a few being registered primarily in Teachers College or some other

department of the University. Twenty-three were enrolled as candidates for the Master's degree. About sixty registered for the first time as candidates for the B.S. degree. Thirty-seven candidates for the B.S. degree came back for their second summer and fifteen for their third summer. The latter group was small because a considerable number who had had two Summer Sessions completed their work for the degree in the 1929 Spring Session. No less than forty-five courses were offered by twenty-six different instructors, about two-thirds of them being recruited from the faculties of other library schools and from positions in active library service.

One hundred and thirty-seven students were registered during the year in Home Study courses in library service, eight of them being citizens of foreign countries and the rest living in thirty different American states. Four of the foreign students were in India. Ten courses have been offered so far and others are in preparation. These Home Study courses are designed for two distinct groups: (1) Untrained persons already employed in libraries who feel the need of supplementing their practical experience by systematic study, and, (2) professionally trained librarians who wish to take up under expert guidance some special branch of service with which they are not familiar. Special care is taken to select students who are qualified to pursue the courses with profit to themselves. Most of the students who register work faithfully on their assignments and carry the courses through to successful completion. It is my opinion that, in proportion to the effort and money expended, no instruction offered by the School contributes more to the progress of library service than the Home Study courses.

Marion Horton, who has held the position of Supervising Instructor in Home Study courses since September 1, 1928, resigned on July 1 to return to California. Clarissa L. Goold has been appointed to take her place.

By way of summarizing the registration figures given in the preceding paragraphs, it may be of interest to note that during the academic year 1929–1930, 911 different persons enrolled for one or more courses offered by the School of Library

Service. It is apparent that, at least in respect to the number of students, the School has far exceeded the wildest forecasts made by anyone when it was established four years ago.

A characteristic feature of the work of the School, which is somewhat more in evidence in the Summer Session than in regular sessions, is the division of the entire program of instruction into different levels and the student body into correspondingly distinct groups, each subject to different standards for admission and with very little overlapping of registration. The essential facts as to this division of the student body into separate and distinct groups are set forth in the Announcements of the School, but the situation is not so widely understood as it should be, especially by those who consider applications for employment from graduates and former students. Everyone should understand that for a library worker to say he has studied at Columbia means little without a specific statement of the courses taken.

The scholarship provided by the Alumni Association of the Library School of the New York Public Library was not awarded during the year 1929-1930 as it seemed to the officers of the Association to be wiser for the present to add the income to the principal of the Plummer Fund so that a larger scholarship may be offered in the future. Applications were received for only one and one-half of the three scholarships given by the New York State Library School Association, Inc. Mrs. Elizabeth M. Furst, of North Adams, Massachusetts, received one of the scholarships for the Winter Session; the other was awarded to Celeste M. Slauson, of Seattle, Washington, for a full year.

Three of the twenty or more Roberts Fellowships awarded annually by the University to students born in the state of Iowa and graduated from an Iowa college or university were assigned to the School of Library Service for the year 1929-1930. Fourteen applications were received for Roberts Fellowships in library service. The successful candidates were: Inez Louise Heneley, A.B., Grinnell College, 1914, A.M., State University of Iowa, 1915; Robert A. Miller, A.B., State University of Iowa, 1929; Lucile M. Morsch, A.B., State University of Iowa, 1927, B.S., School of Library Service, Columbia University, 1929.

The Massachusetts Library Club offers a scholarship each year to a student in a library school, preference being given to a Massachusetts student in a Massachusetts school. In 1929–1930 the scholarship was awarded to Katharine Skinner, a first-year student in the School of Library Service.

For the purpose of enabling "persons who have shown promise of capacity to contribute to the advancement of the library profession, to pursue a year of study and research in library problems" the Carnegie Corporation of New York granted eight fellowships for the year 1929–1930, each carrying a stipend of \$1,500. Four of these fellows elected to do their year's work in the School of Library Service and received the degree of Master of Science. A fifth would have come to Columbia had the formal admission requirements not made it impossible to admit her. The four Carnegie Fellows were: H. Elaine Boylan, assistant secretary of the Oklahoma Library Commission; Marion Patch, assistant classifier, University of Michigan Library; Rose B. Phelps, instructor, University of Illinois Library School; and Nell Unger, librarian, Reed College, Portland, Oregon.

Record should be made here of fellowships held by two other advanced students. Kolbjorn Fjeld, reference librarian of the Deichmanske Bibliotek, Oslo, Norway, came to the United States on a fellowship provided by the Carnegie Endowment for International Peace to enable him to study American library methods. He spent the year at Columbia and successfully completed the requirements for the Master's degree. Edward C. Williams, librarian of Howard University, Washington, D. C., came for a year of advanced study under a fellowship granted by the Rosenwald Foundation, but died on December 24, 1929, after a brief illness. Mr. Williams had already made for himself an enviable reputation as a successful librarian and brilliant teacher. In his death the progress of library service among negroes suffered a serious loss.

An amazingly large number of applications for the Carnegie Fellowships has served to call attention to the need not

only for more fellowships of the same kind, but for enlarged and improved facilities for advanced study. The number of library schools offering the first year of general training and consequently the number of graduates from such schools has increased at a rapid rate in recent years. In the academic year 1925-1926, the year before the establishment of the School of Library Service, fourteen library schools were on the accredited list of the Board of Education for Librarianship, and the number of students enrolled for the first-year work in June, 1926, was 553. Four years later, in June, 1930, the number of accredited schools had grown to eighteen and five more had been provisionally accredited. In the eighteen accredited schools alone, 976 students were enrolled for the first-year work; and these figures do not tell the whole story for the number of library schools not even provisionally accredited, as well as departments of library instruction in colleges and universities attempting to give the equivalent of the first-year work in a library school, has increased even more rapidly.

While the number of students seeking elementary library instruction has doubled and perhaps even trebled within a period of four years, no appreciable increase has taken place in the number of persons in training for teaching positions in this field. Consequently, most of such instruction is being given by those who have had no advanced training in the subjects they are trying to teach, and no special training in the methods of teaching library service subjects. Obviously this situation will speedily lead to a general lowering of standards of instruction unless something is done to increase the facilities for advanced training and to stimulate the demand for it.

Up to the present time very few of the holders of Carnegie and other fellowships have been looking forward to teaching careers. It would seem that we should have at Columbia no less than half a dozen fellowships to be awarded annually on a competitive basis to those who have the general and personal qualifications for library school teaching and wish to secure at least one year's special training for it.

With the great increase of library workers having only elementary training, the demand for advanced training seems certain to increase rapidly. Already in certain large public library systems the more important administrative and technical positions are open only to those who have taken the advanced training represented by the Master's degree. Normal schools and teachers colleges in many cases refuse to consider for the position of head librarian candidates who do not have the second degree. In high schools and junior colleges, the second year of professional study is more and more necessary, especially for administrative and supervisory positions. Many of the more responsible positions in college and university libraries can best be filled by those having advanced training.

It is not surprising therefore that the registration of secondyear students in the School of Library Service increased from twenty-five in 1928–1929 to fifty-four in 1929–1930. The first-year class is at present limited by our library and other facilities to 160 full-time students. Even when enlarged permanent quarters are available, it is probable that the first-year class may have to be limited to approximately its present size in order to accommodate a greatly increased enrollment of advanced students. Only four accredited schools are offering second-year work at present, with a total enrollment in November, 1929, of ninety-eight, of which fifty-six were in residence at Columbia.

If the number of qualified applicants for advanced work continues to increase, it will be necessary in the near future to make additions to the teaching staff. Even with the present enrollment, it would be highly desirable to have on the Faculty at least one full-time teacher whose primary interest lies in the field of research. Development in this direction becomes the more imperative as the time approaches when the School of Library Service must go beyond the second-year curriculum and offer a program of at least two additional years leading to the degree of Doctor of Philosophy.

Unfortunately, librarians with thorough training and experience in methods of scientific research are practically

non-existent. The type of training represented by the doctorate in the Graduate Faculties and other professional schools is urgently needed at the present time to put the standards of advanced instruction in library schools on a thoroughly satisfactory basis.

Probably few will question the advisability of assigning a large place to research in the last two years of any program for a doctorate in library service. Difference of opinion may and does exist in regard to the place of research in the first year of graduate work. By first year of graduate work, I do not refer to the first year in the library school. That is necessarily general, introductory and elementary in character. It is graduate only in the sense that a Bachelor's degree is required for admission. True graduate study begins with the second year. There is little or no opportunity for research in the elementary course.

At what point in the curriculum shall training in methods of scientific research be introduced? This is a very practical question which calls for study and experimentation. How much, if any, of the time of the candidate for the Master's degree shall be devoted to research? The students themselves usually have no desire, in the beginning at least, to undertake anything but "assimilative" study. They come with the idea of learning, under the guidance of competent instructors, as much as they can of what is already known and, for the most part, easily accessible in print. There is no doubt that a year's study of this kind may add greatly to the resources and efficiency of most young librarians. However, the School of Library Service is at the present time working on the theory that every candidate for the Master's degree should get some slight introduction at least to the methods of scientific research which are applicable to the problems of library service. To this end, the Master's essay is expected to represent a bit of original research. It is not assumed that the value of the essay will be very great. In other fields, research of outstanding importance is not expected until after the period of training represented by the doctorate. The Guggenheim and other fellowships having serious research as their prime object, are of the post-doctorate type. It is true that only a small percentage of our graduate students will ever go on to the doctorate or engage in scientific research for its own sake. The primary reason for introducing research methods into the first year of graduate study is to be found in its by-products, which should be of value to all and not merely to the few who show special aptitude for research and eventually make their chief contribution in that field.

The first by-product of value should be a more scientific habit of thinking and of attacking new problems. This is especially important with students whose college training and past interests have been predominantly literary rather than scientific. Even though the librarian himself may not engage in serious research, he should be able to understand and appreciate the significance of scientific studies made by others. Another by-product of importance is the vitalizing of teaching. There is much reason to believe that the best teaching is intimately associated with productive research. "A good teacher," says Professor W. B. Munro, "must continually drink from the flowing stream of knowledge in order to preserve his own intellectual freshness; he must do more; he must himself assist in keeping the stream in motion."

But the most important reason, in my judgment, for bringing modern research methods into programs of professional training as early and as effectively as possible, is the need of trained research workers in the library field. In the natural sciences, in the humanistic and social sciences, in the applied sciences, in education and business and industry, in social service—everywhere except in the library field, extensive programs of research are being carried on, highly organized and well financed. In library service there is practically nothing that can be classified as research. No library, so far as I am aware, appropriates any money for conducting research in problems of library service. The library schools are not equipped to carry on research. If library service is to hold its own in the modern world, it must very soon begin to attack its problems by a thoroughgoing application of the spirit and methods of research that are being found so effective in every

other field, but this cannot be done until professional training for librarianship is thoroughly permeated with the spirit and methods of scientific research.

New York City and its immediate vicinity offer to the library school student an unexcelled opportunity to observe the collections, organization, and services of a great variety of libraries and to come into direct contact with many interesting activities having to do with the production and distribution of books. As a means of helping students in the School of Library Service to take full advantage of these opportunities, an observation manual was compiled during the year under the direction of a faculty committee and published in a tentative edition. The full title is "Observation Manual: A Guide for Students in the School of Library Service, Columbia University, for Use in the Inspection of Libraries and Related Institutions."

The Mary Louisa Sutliff Fund for the purchase of books representative of modern presses and typography, initiated by the Class of 1928 and augmented by the Class of 1929, also approved itself to the Class of 1930 which added a further contribution of \$157. As a result of various requests from interested alumni, a list of the books received by gift or purchased for the Sutliff Collection was published in the February, 1930, Library Service News and will be continued in succeeding issues of the News.

Reference was made in my report for last year to the starting of an alumni publication with the title *Library Service News*. Six eight-page numbers were issued during the academic year. About eight hundred subscriptions were received from interested alumni, which met the costs of printing and distribution. It is obvious that a publication of this kind may be useful in many ways. It proved to be of material service in bringing about the organization at Swampscott, Massachusetts, on June 16, 1930, of a general alumni association with the strictly accurate though somewhat cumbersome name, "The Association of the Columbia School of Library Service and Its Predecessors." The object of the new Association as stated in its constitution is "to advance the interest

of the library profession in America, to aid the Columbia University School of Library Service, and to maintain among the members of the association a spirit of fellowship and service." Dr. James I. Wyer, Director of the New York State Library, was elected the first president.

Probably no group of students in the University makes as heavy or as varied demands for library service as those in the School of Library Service. So far as its funds and the space available for its separate library quarters permit, the School has built up duplicate collections of reference works, bibliographies, and other books in constant use. Permanent and adequate quarters for the School must include provision for a far more satisfactory library service to both students and Faculty. In the meantime, the collections on which the students must depend for their required reading and laboratory work are scattered in nine different rooms in various parts of the campus. The result of this condition would be still less satisfactory if it were not for the cordial and efficient coöperation of members of the staff in all departments of the University Library.

Respectfully submitted,

C. C. WILLIAMSON,

Director

June 30, 1930

UNIVERSITY ADMISSIONS

REPORT OF THE DIRECTOR FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

FOR THE ACADEMIC TEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to present herewith my report for the academic year 1929–1930.

No alterations in the requirements of admission in any of the Schools of the University have been made within the past year.

Significant changes in the administration of these requirements have been made in only a few instances. The most important is one which has to do with the admission from foreign countries of students whose native language is other than English. It is now possible to obtain definite and reliable information regarding their mastery of English by means of an examination which has been established by the College Entrance Examination Board. The Board took this action upon the urgent recommendation of the American Association of Collegiate Registrars, supplemented by numerous appeals from individual colleges and universities. The examination which it has established tests the applicant's aural and visual mastery of English and his ability to write and speak in that language. It is given early in April in various countries in Europe and Asia. It was first given in April, 1930, and while it was not at that time taken by a large number of students, the results seem to be very satisfactory. It supplies the first general, authentic, and reliable means of determining in advance whether or not a student in a foreign country possesses sufficient mastery of the English language to make it wise for him to spend the time and money to come to the United States for college or university work. In spite of all our attempts in the past to ascertain the facts, we have in numerous cases admitted students who, on their arrival, proved

to have so little knowledge of English as to be quite unable to profit by opportunity for college or university work.

The degree of proficiency required for one kind of work may be very different from that required for another. An advanced student entering primarily for research in some special field may undertake such work with an equipment in English which would be inadequate for one who wished to do undergraduate work, with its demand for rapid give and take in the classroom.

In previous reports I have urged the importance of working out a selective system of admission to the graduate schools. Protection of the standards of the University as well as fairness to the students demand that we adopt means of excluding those who are unfitted for advanced study. The problem is a difficult one. The best method for selection of applicants for admission to one department may not be the best for another department. Several departments are now working on the problem and two or three of them have made marked progress toward a solution. I am hopeful that by the end of another year there may be something definite and significant to report.

Last year I reported the establishment of a number of honor scholarships for a group of students in the freshman class in Columbia College. These scholarships were for non-resident students, nominated by the heads of their schools on the basis of outstanding qualities of achievement, character, and promise. Sixteen awards were made last year. The students receiving the awards give promise of being very worthy. For the coming year we expect to have a still better group, even more highly qualified from the standpoint of their future usefulness to the College and to the communities of which they will later be members.

I have previously called attention to the recent slowing up of the rush of students to the colleges. The rate of increase in the past year in some 225 of the stronger institutions was still smaller than in the preceding year, which was in turn very much smaller than that of the years immediately prior to it. Many institutions showed an actual falling off in enrollment as in 1928. Most others showed smaller rates of

increase, and a number of those which admitted approximately the same number of students, selected them from a smaller number of applicants. A few institutions had more applicants than ever, but these were the exceptions. There is some danger that falling numbers may tend to lower standards of admission in some institutions. That would be most unfortunate. One good result of the earlier increase in applications was the opportunity it gave to many colleges to raise their standards of admission and of college work without cutting down their enrollment. Many colleges, to be sure, followed a different policy and simply added to their numbers without improving the quality of their material or of their work. Having expanded their faculties to meet the larger number of students, a drop in enrollment places them in a very embarrassing position and will almost inevitably lead, in a good many cases, to a lowering of standards.

The effect of the business depression on enrollment is so far a matter of conjecture only. In the past a financial crisis has frequently been followed by an increase in college enrollment, perhaps because in the absence of opportunities for employment young men have sought further education when financial handicaps have not made such further education utterly impracticable. Whether that will be the result in the present situation it is at present impossible to say.

Respectfully submitted,

ADAM LEROY JONES,

Director

June 30, 1930

REPORT OF THE UNIVERSITY MEDICAL OFFICER

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

As University Medical Officer it is with pleasure that I send to you the following report of medical service rendered by my staff to the students, Faculty, and employees of the University during the academic year 1929–1930.

The report for the year 1928–1929 stated that during that period the University community had enjoyed a season strikingly free from serious illness and epidemics. It is our good fortune to state that Morningside Heights continues to enjoy this freedom from severe communicable diseases. The general health of our resident population has been particularly good. Since the city as a whole has been free from widespread illness in the past year, we trust that it may be true, as stated by a physician a few weeks ago, that people in general are taking much better care of their health now than formerly.

The campaign to educate people to know and appreciate the comparative values of foods is beginning to have its effect, as well as the opportunities for spending more time in the open air and sunshine which have come with the almost universal use of the automobile. With this background our students come to the University better equipped to benefit by the conditions on the campus that favor the enjoyment of health and the development of well-balanced habits of living.

In proportion to the number of cases seen in the office the number of bedside cases was few and the percentage exceptionally low for the year.

During the academic year in the University medical office 6,317 patients received 26,319 treatments for approximately 8,561 conditions.

SUMMARY

OFFICE CONSULTATIONS

University Office							26,319
Barnard Office							
Johnson Infirmary Office							2,765
John Jay Infirmary Office							9 06
							40,358

NUMBER OF INDIVIDUALS RECEIVING OFFICE SERVICE

			Men	Women	Total
University Office			3,473	2,844	6,317
Barnard Office .				. 1,528	1,528
					7,845

INFIRMARIES

		Bed Patients	Infirmary Days	Average Length of Treatment
Johnson Hall		425	1,713	4.03
John Jay Hall	•	284	1,225	4.30

The Addendum contains a summary of the number of patients cared for and a fairly complete list of the conditions for which they were treated. Notable are the wide range of the medical field presented and the rare opportunities we have to improve health, to increase efficiency, and to do constructive work in the development of future good health at the University and among its graduates. The University community is an ideal field for demonstrating the efficiency of the modern scientific medical approach to the eradication of many of the diseases that are responsible not only for loss of time from productive work but for ill health and inefficiency in the later experiences of the individual. We have built up a health center at Columbia that has become a necessity. The students and Faculty alike depend upon our staff to advise them. The alumni call upon us from all parts of the world for assistance when they feel that they need help such as our organization can render. The staff is loyal beyond measure. Our quarters and equipment are excellent, but we have reached a point in the development of the work from

which we cannot proceed further in our efforts to grow with our field without more adequate office and infirmary space. Every square foot of space assigned to us in several buildings is now used to capacity. Unless we are given a building especially planned and equipped to meet the rapidly advancing needs we must stagnate for lack of space to function. As Medical Officer it is my duty and privilege to bring this urgent problem to the President and Trustees with a hope that they may be able at an early date to solve our difficulties.

In the annual reports of the past few years there have been outlined in detail the status and progress of our medical service. Therefore, except to state that we have gone on as usual in this phase of our responsibilities we will pass over this part of the work and proceed to the report on the medical examinations of the incoming freshmen, undertaken for the first time in the fall of 1929.

In the report of last year was an outline of the proposed schedule of medical examinations to be given to the students entering Columbia College in the fall of 1929. Every detail of these plans was most carefully executed and we feel that the results have more than justified the expenditure of money, time, and thought that was necessary to launch successfully a thorough medical examination of 628 new Columbia College students.

The medical office suite in Earl Hall is running to capacity with the routine medical work, so it was necessary to find some room that could be equipped to carry on effectively these health examinations. The trophy room on the main floor of Earl Hall was chosen because of its size and convenience to the medical office. A framework of three-fourths inch pipe was constructed so that six examining cubicles could be made by canvas curtains hung from the pipe frame. Two dark chambers were built for the examination of the nose, throat, sinuses, eyes, and ears. The entire equipment is so constructed that it can be set up and taken down in a very short time, and stored in a small space when not in use. Electric wires run through the pipes with outlets at definite points for the use of electrical equipment necessary for special

types of examinations. Each examining cubicle is fully equipped to make a complete medical examination.

The examinations began with the week of registration in September and were made daily from 9 a. m. to 5 p. m. until completed, a period of slightly less than three weeks. A staff of seventeen medical men made the routine examinations. Associated with them were three dentists and a dental X-ray technician. Each complete physical examination took about two hours of time. Careful records were made so that the data would be of value later in dealing with the health problems of the individuals. The staff of physicians who made these examinations was composed of men of excellent training and experience, who are scientifically interested in developing this field of health examinations. The same group will make the examinations during the fall of 1930. An effort was made to unify the work of the staff by holding conferences upon the type of examination to be given, the method of recording findings, and the objects in view as to the immediate and ultimate use of the data assembled. This coming fall the medical staff will convene before the examinations begin to discuss in detail the statistical study of the work thus far accomplished. One of the most difficult problems we meet with in making health examinations is the development of uniform methods of recording. We have, however, laid a successful foundation and with a more experienced group this fall we hope our records will be exceptionally free from omissions and ambiguities. At the close of the year each boy's history in the files was complete including the health examination made when he entered Columbia College at the beginning of the year, his record of illnesses during the year, and his scholarship record.

We are paralleling the data of health and scholarship so that in the years to come, as we proceed with the health program, we may be able from accurate recorded facts to investigate the relationship between academic accomplishments, extracurricular activities, and health. We believe that in this period of civilization where competition is so keen, health is a fundamental prerequisite to success in every phase of human experience as well as the main road to comfort and complete enjoyment of life in every decade from its beginning to its end. The college-bred man is, or should be, a member of that branch of society that works in the frontier zones of advancing civilization because he has a training that has prepared him for the duties of the "shock troops." He should be qualified by his knowledge of the arts and sciences to meet the new conditions that accompany the advance of time. The educational institutions of this country have for some years realized the importance of health to the follow-through of college and university training, and progress along these lines shows the care with which health programs have been developed; but much remains to be done in the field of research in order to rule out unnecessary and useless procedures that still block the progress of scientific medical practice. The approach through the field of preventive medicine to a state of health with abundant vitality and high resistance to disease is comparatively new. We have much to learn although our progress thus far has made this field of medical research both attractive and fruitful.

College men and women present an ideal research field for the study of health problems and data concerning them is rather easily accumulated because, along these lines, they present a fairly homogeneous group, and remain under supervision from four to seven consecutive years giving opportunity for recording the health experiences of the same group over a comparatively long and important period. In all fields of science, research is expensive, but the future reaps a harvest when the problems are solved. There are few fields that promise in time to come so much of value as this health examination program, and the future will see foundations established for the study of its many phases. We need at Columbia a large endowment to develop and carry forth this program and we trust that those who appreciate the value of the work to be accomplished will make every effort to bring the program and its needs to the attention of men of wealth who are seeking valuable and lasting channels into which to put their fortunes. Many fine minds are unproductive today because of physical ill health that may have been, at some period, preventable. Our interest today is in the solving of these health problems so that we may, in the future, be able to prevent the physical breaks that make useless or less efficient the mind that has the capacity to do constructive thinking and to initiate far-reaching projects.

In all, 628 incoming students received complete medical examinations. Of this number 547 were classed as freshmen; 81 were admitted to advanced standing. The following summary of the ages of the 628 students is of interest.

Age									Number of Students
Fourteen .									I
Fifteen									20
Sixteen									77
Seventeen .									167
Eighteen .									154
Nineteen .									81
Twenty									46
Twenty-one									29
Twenty-two									24
Twenty-three									6
Twenty-four									7
Twenty-five									5
Twenty-six									2
Twenty-sever	1								I
Twenty-eight									4
Twenty-nine									3
Thirty-two									I

Of the total number, 536 state that their fathers are still living; 587 have mothers still living. All but 79 of the students entering college this past year are members of families where they enjoy the privileges of contacts with brothers and sisters.

Number of Brothers Living	Number of Students	Number of Sisters Living	Number of Students
I	197	I	217
2	99	2	100
3	51	3	51
4	28	4	9
5	8	5	7
6	2	6	3
7	3	8	I

Number of Brothers Dead	Number of Students	Number of Sisters Dead	Number of Students
I	51	I	. 40
2	16	2	8
3	5	3	I

These facts seem to indicate that moderately large families are still not infrequent. It is of interest to find that out of this group, 212 are the eldest children in their families; 129 are second in the family group; 69, third; 35, fourth; 24, fifth; 20, sixth; 8, seventh; 1, ninth; and 90 are the youngest.

The following table of the diseases recorded by the entering class is of interest in showing the prevalence of certain illnesses during childhood.

Diseases								Number of Students Who Have Had the Disease
Chicken pox								310
Convulsions								11
Diphtheria								65
Encephalitis								I
German meas								107
Heart disease								7
Malaria								18
Measles								440
Mumps								255
Pneumonia								99
Poliomyelitis								6
Rheumatism						٠	٠	21

Scarlet fever						97
Tonsillitis						220
Tuberculosis						I
Typhoid fever .						9
Whooping cough						312

Only 36 of the entering students reported that following any illness they had serious complications which necessitated for a period modification of their programs of activity or of study.

Interest in athletic or gymnastic activities would seem to be almost universal. Only 25 members of this entering class (approximately 3 per cent) expressed a lack of interest in active participation in some form of physical exercise. Of the 3 per cent who stated that they did not enjoy physical activity we find in more than half a health hazard that is responsible for this lack of interest. In the other members of this group awkwardness due to a lack of muscular control would seem responsible for the disinterest in sports activities. The following list of favorite types of physical activity shows the wide range of such interests.

Activity																Number of Students
Archery																I
Baseball																79
Basket ball.																62
Bicycling .																6
Bowling .																I
Boxing																11
Calisthenics																8
Fencing																12
Football																66
Games (uncl																12
Golf																31
Handball .																18
Manual work																4
Riding horse																9
Rowing															Ċ	33
Running .															•	33
Sailing															•	33
Skiing														•	•	ī
Soccer	•	•	•						•	•	•	٠	٠	•	•	16
SUCCEI	•	٠	•	•	٠	٠	٠	٠	•	•	•	•	•	•	٠	10

Sports (und	cla	SS	ifie	ed))				٠		33
Swimming											190
Tennis											125
Track											
Volley ball											I

We find that most of the preparatory schools from which our students come have a compulsory gymnasium attendance requirement, so that the great majority of the incoming students have had some type of constructive physical education. Although 104 students reported that the schools from which they came had no compulsory physical education, only 71 out of the whole group of 628 state that they did not take part in the program offered by the school. Athletics are elective in most schools, as only 27 boys reported that in the institutions from which they came the program was compulsory. However 328, slightly more than 50 per cent of the freshmen, reported that they participated in athletic activities during their high school training. This is, we think, a fairly high average since in athletics only the successful are apt to survive. The poor performer is soon eliminated from the group unless he belongs to the class that sticks to the track or field events from the mere joy of the sport rather than the ambition to make a record. Swimming is the most generally enjoyed of all the sports and the activity that most men seem to master early; 547 stated that they could swim and 190 voted it their favorite form of exercise.

That the incoming students appreciate the value of education to the extent of working for it is apparent from the fact that 101 planned to carry a full-time job while they took a complete year's work in Columbia College. In order to meet their expenses 116 found that it would be necessary to take part-time jobs during the college term. Vacation periods are not exempt; for many students they represent periods of hard work. During these weeks the students can secure positions that give them opportunities to save money for the expenses of the next college term. For the accumulation of income from these full-time vacation positions, 264 of the entering freshmen stated that they would be required

to seek work; while 170 were situated financially so that parttime work during the summer months would give them enough income to pay their college expenses for the next year. The college curriculum is a fairly full day's work for the average student. To dovetail two jobs, one educational and one financial, and to fulfill the scholarship standards of the college, require a determination on the part of the student that calls for our admiration and approbation. To carry such a strenuous program over a period of years the boy must have health of body and mind and a sense of responsibility.

Diet is unquestionably a vital factor in maintaining health. In reviewing the diets of the students we have been interested to find that they have been accustomed to what may be considered well-balanced meals. Dairy products and green vegetables are eaten regularly by the majority. Of the 628,

```
618 regularly eat lettuce
528
                  spinach
        "
600
                  tomatoes
        "
                  cabbage
577
        "
607
                  celery
              " Brussels sprouts
        "
474
                  broccoli
343
        66
565
                  asparagus
        "
               66
612
                  peas
        "
                  string beans
605
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Milk is popular.

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18 take regularly one glass daily
172 " two glasses daily
85 " three glasses daily
155 " four glasses or more daily
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Since smoking has become so common among men and women of all classes and ages, it is interesting to find that the majority of the students entering Columbia College this year did not smoke up to the time of acceptance. It will be interesting to follow up this item when an opportunity is given to do so. Only 183 of the entering students put themselves down as smokers and are the basis of the following table.

Age at V					ıts	С	on	ım	en	сец	l		Number of
	Sn	iok	rin	g									Students
Eleven													I
Twelve													2
Thirteen .													2
Fourteen													15
Fifteen				٠									14
Sixteen													38
Seventeen .													53
Eighteen .													36
Nineteen													9
Twenty													5
Twenty-one													3
Twenty-two													3
Twenty-thre													2

The average daily consumption of tobacco by these boys was as follows:

as	101	100	VS.										
		Cig		S									Number of Students
1	o or	les	S										129
2	0 "	4.4											18
3	o "	4.6											6
4	.0 "	6.6											2
	i	Pip	es										Number of Students
1	dail	ly.											22
2	"												16
3	"												3
4	. "					٠							2
5													I
6	"		٠	٠	٠	٠	٠	٠			٠		2
	(Cigo	ars										Number of Students
I	dail	ly.											6
2	**												I

The medical examinations revealed many conditions that required either a later special examination for diagnosis, or observation of a recognized disease or abnormality, or a series of treatments. Our records show that 229 students out of this group of 628 were placed under supervision, requiring in all 619 visits to the medical office. This is an average of

from two to three visits for each case. Roughly classified these cases were grouped as follows:

Condition	Number of Students
Anemia	5
Appendicitis (chronic)	2
Abscess (boil)	I
Abscess (boil)	3
Cicatrix (weak)	2
Diabetes	1
Digestive disturbances	5
Dislocation of shoulder (chronic)	ī
Double vision (paralysis)	I
Ear diseases	8
Epilepsy	2
Eye diseases	6
Fatigue	3
Flat foot	2
Gastric ulcer	1
Heart disease (functional or organic)	87
Hernia	7
Hypertension	2
Hypotension	2
Muscular development (poor)	1
Nose and throat diseases	13
Nutrition	15
Poliomyelitis	4
Problems of adolesence	9
Psychoneuroses	5
Respiratory diseases (non-tuberculous)	8
Skin diseases	10
Speech defects	2
Spinal meningitis (old)	I
Spine (functional curvature)	3
Tonsils (diseased)	4
Tuberculosis (healed)	2
Varicocele (painful)	I
Wax in ears	2

In conjunction with the general medical examinations this past year, three items were especially stressed and more fully investigated:

- (I) The functional and organic heart conditions.
- (2) The clinical and X-ray examination of the teeth.

(3) A complete examination of the eyes for refractive errors and visual disturbances.

The heart examination included not only the usual clinical tests but also a series of functional tests and, when indicated, an electrocardiogram. These studies have been valuable in directing the student to the proper channels of physical activity and in establishing for him during the period of adolescence the most helpful program of rest and activity for his peculiar needs. In planning the program of treatment for these cases it is frequently found advisable to recommend special types of activity and to prohibit temporarily or permanently work in physical education required of candidates for the A.B. degree in Columbia College.

Through the excellent coöperation of Dean Owre of the Dental School we were able to arrange for a thorough examination of the mouth. Dr. Harold J. Leonard, Professor of Dentistry, took charge of the clinical examinations and Dr. Houghton Holliday supervised the X-ray examinations. These studies yield much material for an interesting introduction to the problems of the mouth as affecting general health. We plan to continue such observations over a period of three or more years in order to accumulate data sufficient to make scientific deductions. The freshman group represents a selected class of young men who for the most part have been trained to take care of their teeth. They represent a group that is in good health, vigorous, and well nourished. We would expect them to show oral conditions that are somewhat better than the average. We have, too, an opportunity to observe the types of dentistry that are practiced in all parts of the country. Errors in mechanical technique can be classified. The study of hundreds of mouths that show dental work completed will afford scientific data that is of inestimable value to the research workers in this field. It is one of the direct ways that faulty technique can be discovered and gradually corrected by the teaching in the schools of dentistry and by carefully prepared reports printed in the journals. The results of these examinations will add much valuable

data to that which may be collected in the dental clinics. All of this, however, is secondary to our main issue and is not the principal object of our search. We make these examinations primarily to advise the student on matters of oral hygiene that will affect his teeth and general health. We found cases where the student lacked the grinding surfaces to prepare properly his food for digestion; other cases where abscessed roots were present, others still where decay had begun under very well made fillings. We have observed also abnormalities, the discovery of which may be of value in problems of general developmental disturbances involving the endocrines. The bringing to light of hidden foci of infection that give no symptoms of their presence is in itself worth the time and expense of these X-ray examinations.

sī	JMMARY—DE	IN:	ΆI	. E	X	AM	IN	ΑТ	Oľ	NS		
Condition												Number of
												Students
Teeth missing	one tooth											75
	two teeth											81
	three teeth											48
	four or mor	e t	ee	th								61
Unerupted	one tooth											39
•	two teeth											73
	three teeth											44
	four or mor	e t	ee	th								91
Impacted	one tooth											50
•	two teeth											39
	three teeth											10
	four teeth.											17
Root remnant	one											9
	two											5
	three											2
Exposed pulp												3
Diseased pulp												3
Pulpless	one tooth											47
•	two teeth											17
	three teeth											2
	four teeth											. 3
Periapical disease	one tooth											45
(Abscesses, etc.)	two teeth											10
, , , , , , , , , , , , , , , , , , , ,	three teeth											5
Present susceptibility	to caries .											199

Past susceptibility to	caries (fill	ing	gs))										388
Calcareous deposits														303
Teeth abnormally col														257
Gingivitis	slight .													47
	moderate													67
	chronic													I
	marked													4
Daviadantaslassa														
Periodontoclasea														41
(Pyorrhea)														II
	hopeless			٠		٠	٠		٠	٠		٠	٠	I
Periodontoclasea com	plicated by	y:												
	traumatic	00	ccl	us	ioi	ns								I
	crest absc	ess	3											3
	rarefaction													I
Prosthetic restoration														
	one tooth		-											3
	two teeth													12
														6
Impoulan assissions	four teeth													_
Irregular occlusions														176
Miscellaneous finding											٠			43
(Calcareous deposi-	ts in pulp,	ex	tra	a t	ee	th	, e	tc	.)					

On the 8th of December, 1929, we established a dental hygiene clinic under the supervision of Dr. Anna V. Hughes, Professor of Preventive Dentistry. Room 227 Physics was furnished with fifteen dental chairs. The clinic hours were from 9 to 12 o'clock daily except Sundays and college holidays. From December 8 until June 1 fifteen operators worked under the direction of Miss Geneva H. Walls. In all 1,449 treatments were given to 1,097 patients. The treatments consisted of a thorough cleansing of the teeth and a demonstration of how to use the toothbrush. This dental hygiene clinic for the students was greatly appreciated and we plan to continue it during the coming year.

Our clinical experience with students seems to indicate that many of their ills are due to ocular disturbances, especially muscular imbalance. Headache, sleeplessness, gastrointestinal disturbances, disinclination to physical activity, inability to follow closely the printed page, drowsiness while reading, attacks of persistent nausea; all may point to eye strain as a primary cause. We should have a record of the refractive errors and muscle balance present when the student

enters college so that, should irregular nervous or constitutional symptoms develop later, we may without loss of time rule out or confirm by reëxamination eye strain as the basic cause. We have an excellent opportunity in this special field, with examinations periodically and scientifically made, to save loss of time for the student by correcting errors of refraction before ocular muscular fatigue develops, and by improving general muscular tone where dietetic errors or physical defects of the body, such as focal infection, constipation, and sluggish metabolism may combine to accentuate the chain of nervous changes that result from uncorrected refractive errors. The eyes are to the student one of the most important organs of the body and yet we find many who ignore the early symptoms that point to overwork and strain of these valuable sensory organs.

Fortunately the great majority of our students are quick to appreciate the value of glasses in increasing their visual acuity and adding to their physical comfort and therefore promptly seek advice when they realize that something is wrong with their visual function. The incoming freshmen represent an exceptionally fine group of young men. Their health records are much above the average for boys in their teens. Their scholarship records in the schools from which they come are high. It was therefore with great interest that we made most carefully the eye examinations. The results of these examinations are recorded in the following summary.

SUMMARY—EYE EXAMINATIONS

Number of students receiving complete eye examination		٠		591
Number with normal vision				39
Number showing errors of refraction				552
Number who were wearing glasses at time of examination	1			194
Classification of Errors		Ν	Tumbe	er of
			Stude	nts
Simple myopia			65	
Simple hyperopia			173	
Astigmatism			82	

Myopia with astigmatism .								110
Hyperopia with astigmatism								121

We desire to accumulate records over several years before making any definite recommendations or before attempting to draw conclusions from the statistics compiled. It is our plan to make as careful measurements as possible to check up the experiences of the men while in college and through these records to determine what can be done in a preventive way to improve the health and efficiency of our student population through the proper care of the eyes. We wish to give full credit for this most careful refractive examination of the eyes to Professor James P. C. Southall and his associate, Professor Clifford L. Treleaven. These examinations were made by a staff of experienced men in the optometry laboratories of the Department of Physics directly under the supervision of Professor Treleaven. The examination was for scientific information upon which to base medical advice. The medical examination of the eyes was made by the staff of examining physicians. Students showing refractive errors requiring correction were referred to their private ophthalmologists for reëxamination and the prescribing of proper glasses.

In summing up the results of the medical examinations of this incoming group of students to Columbia College we note that we reported to the Dean of the College that 588 students, classified as A, were in good health and were physically equipped to carry a maximum academic load if desirable. Thirty students were classed as B grade, with the recommendation that they should be supervised carefully since they showed physical conditions that made it doubtful whether or not they could complete successfully a full year's college curriculum of fifteen or sixteen points. Ten were given a D classification that carried a recommendation of a minimum program of studies and activities.

To the Medical Director of the University Gymnasium 369, classified as A, were recommended as being physically qualified for all types of competitive games and athletics; 223, classified as B, were recommended to take the required

work in physical education for credit toward their degrees but were not considered physically qualified for tests of speed or endurance demanded of those entering the field of competitive sports; 26 were placed in the C group and were given special work by the Medical Director of the Gymnasium to meet individual conditions; 10 were classified as D and because of physical handicaps were ruled out of all types of physical activity and were placed permanently under the supervision of the University Physician.

Recommendations to the Secretary of the University Employment Bureau based on the physical conditions and special needs of the individual students making up this group were as follows. The classification of A was given to 511 students. Under this classification the student is considered physically qualified to take any type of remunerative work. The B group contained 38 students. Members of this group may be given clerical or tutoring jobs, or manual work if not too strenuous. Under the C classification 19 students were limited to full-time clerical and tutoring appointments. Twelve in the D class were advised to take part-time jobs only; 16 in E were limited to part-time jobs of any type during the daytime only; 6 in F were limited to part-time jobs in the open air during the daytime only; 9 in G were limited to clerical or tutoring part-time jobs during the daytime. The H class of 19 students suffered from physical handicaps, either temporary or permanent, that made it inadvisable for them to do work of any kind outside of their academic duties. The above recommendations were made to the Student Employment Bureau so that the staff in finding employment for the students could assign jobs that were best fitted to the health conditions of the applicants. In no case should these facts work hardship to the student who must find employment to enable him to pay his expenses during the academic year. With a knowledge of the applicant's physical limitations, the responsibility of finding suitable jobs is placed where it belongs, upon the staff members of the Employment Bureau.

In closing this report as University Medical Officer, I wish to express my deep appreciation to the members of my staff who have made this year's record possible by their loyalty to the University and to the medical service. They have considered only the good of the work and the welfare of their patients. To St. Luke's Hospital, the Medical Center, Knickerbocker Hospital, and the French Hospital we again owe a debt of gratitude for their willingness to care for our students needing hospital treatment, who have not been financially able to pay for private care. These institutions have without exception taken them into their wards and have given them the most careful surgical and medical attention.

Respectfully submitted,

WILLIAM H. McCastline, University Medical Officer

June 30, 1930

ADDENDUM

UNIVERSITY MEDICAL OFFICE STATISTICS

OCTOBER 1, 1929-MAY 30, 1930

Conditions	Cases	Conferences, Examinations, and Treatment
Specific Infectious Diseases: Abscesses		
arm	9	9
axilla	2	2
back	4	5
breast	2	2
buttocks	3	3
cheek	8	12
chest	I	I
chin	3	3
finger	3	4
flank	I	I
groin	2	4
heel	I	I
inguinal region	I	I
jaw	6	7
leg	2	2
lip	3	3
neck	76	83
peri-tonsillar	5	5
peri-rectal	3	3
sub-maxillary	I	I
sub-pectoral	I	I
toe	2	2
unclassified	12	13
Arthritis		
acute	3	3
Carbuncle		
neck	2	3
Cellulitis		
face	2	2
finger	I	I
foot	3	3
leg	18	19
Chickenpox	3	4
Coryza (common cold)	1,057	2,886

Conditions	Cases	Conferences, Examinations,
Conditions	Cuscs	and Treatment
F		
Furunculosis scalp	I	I
German measles	3	3
Impetigo contagiosa	3 46	72
Influenza	40	12
intestinal	12	18
respiratory	387	423
unclassified	3°7 6	423
Measles		8
	5 10	11
Mumps		
Paronychia	23	24
Poliomyelitis		
convalescent	I	I
old	2	2
	_	0
acute	7	8
chronic	80	119
Scarlet fever	I	2
exposed	49	49
Tinea (ringworm)	45	69
Tinea "Epidermophytosis"	110	148
Tuberculosis		
elbow joints	I	I
lung		
active	20	52
arrested	7	15
spinal deformity	I	I
Ulcer		
leg	18	18
-		
Total	2,075	4,144
D: D		
Diseases Due to Animal Parasites:		
Malaria	3	6
Oxyuris vermicularis	I	I
Pediculosis		
corporis	3	4
scalp	2	3
Scabies	5	12
Total		
Total	14	26

Conditions	Cases	Conferences, Examinations, and Treatment
Diseases of Metabolism and Deficiency: Acidosis		
non-diabetic	3	6
Diabetes mellitus	4	9
Vomiting, recurrent	I	I
Total	8	16
Diseases Due to Physical Agents:		
Burns		
acid (not specified) 2d degree	8	12
bromine—2d degree	3	3
chemical—1st degree	2	4
chemical—2d degree	47	51
fire	3	4
ground	2	2
hydroxide	I	I
iodine	2	2
mat	I	2
nitric acid	2	2
sodium hydroxide	I	I
Total	72	84
Intoxications and Poisonings:		
Alcoholism		
acute	I	2
Poisoning food	11	13
Total		7.0
Total	12	15
Tumors, Benign and Malignant:		
Adenoma		
cyst	2	2
thyroid gland	I	I
Carcinoma		
rectum	I	I
uterus	I	I
Chalazion	4	4

Conditions	Cases	Conferences, Examinations, and Treatment
Cysts		
mucoid	12	12
sebaceous	23	23
Lipoma		
back	I	I
Osteoma		
femur	I	I
Papilloma	15	15
Polypus		
duodenum	I	2
gum	1	I
nose	I	I
Tumor		
breast	2	2
buttocks	I	I
cerebrum	2	2
eye lid	4	4
fibroid	4	6
quinine (buttocks)	1	I
testicle	1	I
unclassified	3	3
Verruca	33	35
Voltaca		33
Total	115	120
Injuries:		
Abrasion		
ankle	2	2
unclassified	68	70
Amputation		
finger (traumatic)	I	I
Bee sting		
face	2	2
Bites		
extremities	5	5
Concussion		
brain	5	5
Contusion		
chest	I	I
coccyx	2	2
extremities	I	I

Conditions	Cases	Conferences, Examinations, and Treatment
knee	I	I
nose	3	3
os calcis	I	I
unclassified	155	156
Dislocation		
acromial clavicular	I	I
elbow	3	3
semi-lunar cartilage	3	3
shoulder	7	II
thumb	3	3
Fracture		
comminuted (phalanx)	I	I
external malleolus	I	I
finger (distal phalanx)	4	4
finger (proximal phalanx)	I	I
glenoid cavity	I	I
nose (displacement)	I	I
nose (without displacement)	3	3
radius	I	I
skull	I	I
ulna	I	I
wrist	5	5
Hematoma		
arm	3	3
eye lid	2	2
finger	I	I
leg	4	6
nail	3	3
scalp	2	2
Sprains		
ankle	76	79
back	3	3
elbow	1	I
finger	14	14
foot	8	10
knee	8	8
leg	I	I
neck	I	I
shoulder	2	2
thigh	I	I

Conditions	Cases	Conferences, Examinations, and Treatment
toe	2	2
wrist	12	12
Strains		
abdomen	I	I
arm	I	1
calf	2	2
chest muscles	I	I
extremities	I	I
sacro-iliac	13	16
shoulder	3	3
unclassified	32	32
Subluxation of	32	32
acromial clavicular joints sterno clavicular joints	I	I
temporomandibular joint	3	3
-	1	•
Traumatic injuries		
fall	I	I
Wounds		
gunshot	I	I
incised fingers	2	2
laceration (head)	I	I
laceration (location not specified)	20	20
puncture arm	2	2
arm	5	5
eye	2	3 2
foot	6	6
hand	2	2
knee	I	I
nail	I	I
thumb	I	I
location not specified	23	23
Total	556	573
Diseases of the Skin:		
Acne		
facialis	I	I

Conditions	Cases	Conferences, Examinations, and Treatment
rosacea	I	I
vulgaris	52	65
Alopecia	4	4
areata	I	I
Callositas	26	26
Cicatrix	2	2
Clavus	4	4
Dermatitis		
chemical	I	I
venenata (ivy)	13	21
unclassified	83	121
Eczema		
acute	34	44
chronic	5	7
Erythema		
iris	I	4
nodosum	I	I
toxicum	2	2
Herpes		
facialis	2	2
labialis	14	12
Hyperidrosis	4	5
Leukoderma	ī	I
Lichen planus	6	9
Molluscum contagiosum	I	I
Pompholyx	7	8
Pruritus	I	I
Psoriasis	10	11
Seborrhea capitis	36	86
Seborrheic eczema	42	91
Urticaria	50	60
Total	405	596
Diseases of the Circulatory System:		
Adolescent heart	3	3
Angina pectoris	I	I
Aortic insufficiency	3	3
Aortic stenosis	I	I
Arteriosclerosis		
general	I	I
general		

Conditions	Cases	Conferences, Examinations, and Treatment
Auricular fibrillation	I	I
Bundle-branch block incomplete	2	3
Endocarditis (chronic)	3	3
Hypertension		
essential	2	4
nervous	2	2
renal	I	I
unclassified	39	81
Hypertrophy	I	I
Hypotension	24	28
Mitral insufficiency	9	14
Mitral insufficiency and hypertrophy	I	I
Mitral stenosis	2	2
Myocarditis (chronic)	9	12
Neurosis		
cardiac	8	17
Over active	3	3
Paroxysmal tachycardia	10	15
Premature beats	I	I
Pulmonic systolic murmur	I	I
Sinus arhythmia	I	I
Thromboangeitis obliterans	I	2
Veins		
phlebitis	6	9
varicose	ΙΙ	13
Total	147	224
Diseases of the Lymphatic System: Adenitis		
acute infectious	6	6
axillary	I	I
cervical	IO	14
inguinal	4	4
post-auricular	I	I
sub-lingual	4	4
Lymphadenitis	3	3
cervical	2	2
Lymphangitis	2	2
Total	33	37

Conditions	Cases	Conferences, Examinations, and Treatment
Diseases of the Blood and Blood-forming Organs:		
Anemia		
secondary	53	78
Total	53	78
Diseases of the Ductless Glands:		
Dyspituitarism	I	I
adenomatous with normal function	2	3
Hyperthyroidism	25	62
Hypothyroidism	49	115
Myxedema	I	I
Status lymphaticus	I	I
Thyroid disfunction (not classified)	3	4
Total	82	187
Diseases of the Nervous System:		
Angioneurotic edema	4	6
Angiospastic hemiplegia	2	2
Anxiety psychosis	I	I
Dementia senile		
pre-senile form	2	2
Dysarthria	2	4
Dystonia musculorum deformans	2	2
Encephalitis lethargica	I	I
Epilepsy	5	14
nocturnal	I	I
Herpes zoster	7	II
Hiccough	I	I
Insomnia	23	27
Little's disease	I	I
Metatarsalgia (Morton's toe)	5	5
Myalgia	3	3
Myositis	9	9
abdominal muscles	I	2
back	H	14
chest	2	2
hip	I	I
Nervousness	33	42

Conditions	Cases	Conferences, Examinations, and Treatment
Neuralgia		
coccygodynia	4	5
facial	ΙΙ	11
sciatica	4	6
supraorbital	7	8
Neuritis		
traumatic (ulna)	2	2
Paralyses		
6th cranial nerve	2	2
7th cranial nerve	3	3
Psychoneuroses		
anxiety	2	2
apprehension	2	2
fatigue	I	3
neurasthenia	79	136
unclassified	13	14
Psychoses	2	2
fatigue	2 I	I
toxic (delerium tremens)	I	I
Vertigo	1	1
auditory	4	4
1	8	8
ocular		
Total	263	361
Diseases of the Bones, Joints, Muscles, Tendons,		
and Fascia:		
Arthritis		
fingers	I	I
knee (acute)	61	92
polyarticular	3	3
sacro-iliac (chronic)	I	2
temporomaxillary (acute)	4	4
Atrophy		
left side of face (marked deformity)	I	I
Bursitis		
acute	5	5
chronic	4	4
Deformities due to poliomyelitis		
atrophy muscles of		
arm	I	I

	Cases	Conferences, Examinations, and Treatment
leg	I	2
thigh	1	I
Flat foot	5	6
Ganglion		
wrist	5	7
Hallux		
valgus	3	3
Loose body in joint		
knee	4	6
Muscle tear	I	I
Osteitis		
tibia	I	I
Periostitis traumatic-tibia		10
Scoliosis	. 9	10
postural	I	I
Synovitis	•	•
acute traumatic knee	19	19
Torticollis	-9	-9
non-spasmodic	I	I
Weak feet	24	25
Total	156	196
Diseases and Injuries of the Eye and Ear: Ear		
cerumen	132	183
deafness		
middle ear	9	11
furunculosis		
external auditory canal	12	14
hematoma auricle	4	5
injury, auditory canal, traumatic	7	7
mastoiditis		
post-operative	2	2
myringitis	7	7
otitis media	47	65
acute	47 12	12
chronic simplex	243	269
chronic suppurative	² 43	209
rupture, T. M. traumatic	22	29

Conditions	Cases	Conferences, Examinations, and Treatment
Eye		
abscess of eyelid	58	64
amblyopia	3	3
blepharitis	9	15
blepharospasm	I	I
cataract (traumatic without perforation)	I	I
chemical burns		
sclera and conjunctiva	2	3
color blindness	I	2
conjunctivitis		
acute	9	9
chronic follicular	4	4
chronic simple catarrhal	247	316
phyctenular :	I	3
traumatic	I	I
ecchymosis lids	I	I
errors of refraction (corrected)	120	121
eye strain	32	32
foreign body ocular conjunctiva	262	262
hemorrhage		
retina (traumatic without perforation)	I	I
subconjunctiva	6	10
iritis (rheumatic)	6	7
keratitis		
interstitial (non-syphilitic)	ı	I
ulcerative	4	5
muscae volitantes	3	3
neuritis optic	I	I
pterygium	2	- 2
separation of retina		
(traumatic without perforation)	2	II
stenosis, lacrimal duct	I	I
Total	1,293	1,504
Diseases of the Nose and Accessory Sinuses:		
Deviated septum	9	12
Epistaxis	33	42
Ethmoiditis	4	26

Conditions	Cases	Conferences, Examinations, and Treatment
Furunculosis		
nasal vestibule	109	123
Rhinitis	109	123
acute	66	92
chronic	9	9
Sinusitis		
acute	304	1,906
chronic		1
Chronic	15	16
Total	549	2,226
Diseases of the Mouth, Lips, Cheeks, Pharynx,		
Tonsils, and Palate:		
· · · · · · · · · · · · · · · · · · ·		
Pharyngitis		
acute	991	1,616
chronic	15	18
Stomatitis	-3	
		-
aphthous	43	61
herpetic	23	28
Tonsillitis		
acute follicular	140	209
chronic		_
-	19	31
Trench mouth	I	I
Vincent's angina	3	3
Total		7.067
101111	1,235	1,967
Diseases of the Jaw, Teeth, and Gums:		
Gingivitis	24	31
Pyorrhea alveolaris	6	7
Teeth	, i	,
broken	2	2
caries	20	21
focal infection	4	4
unerupted	19	21
Total	75	86
Di dui m		
Diseases of the Tongue:		
Tongue		
glossitis (acute)	2	2
77 . 1		2
1 otat	2	2

Conditions	Cases	Conferences, Examinations, and Treatment
Diseases of the Stomach:		
Gastrites		
acute	10	14
Hyperchlorhydria	17	20
Hypochlorhydria	I	I
Indigestion		
gastric (acute)	40	50
Neurosis		
gastric	I	I
Pylorospasm	4	7
Ulcer		
gastric	7	10
Total	80	103
Appendicitis acute	22 I 4	35
chronic	16	21
Autointoxication	31	51
appendicular	1	I
intestinal	I	I
Colitis, mucous	57	95
Constipation	67	84
Diarrhea (acute)	2	2
Diverticulosis, colon and duodenum	2	3
Duodenitis	3	3
Enteritis (acute)	79	97
Enteroptosis	2	2
liocecal spasm	I	I
Indigestion	100	130
Intestinal adhesions	I 2	I
Ulcer	2	4
duodenal	14	23
Total	406	561

Conditions	Cases	Conferences, Examinations,
		and Treatment
Diseases of the Liver and Biliary Tract: Cholecystitis		
acute	2	5
chronic	14	20
Cholelithiasis	ī	1
Jaundice	5	9
Total	22	35
Diseases of the Abdomen and Peritoneum in General:		
Hernia		
femoral	3	3
inguinal indirect	19	33
umbilical	I 2	I 2
ventral		
Total	25	39
Diseases of the Rectum and Anus:		
Fistula in anus	I	I
Hemorrhoids		
external	28	34
internal	I	I
Pruritus ani	I	2
Total	31	38
Diseases of the Larynx:		
Aphonia, hysterial	1	I
Laryngitis		
acute catarrhal	140	227
chronic	8	8
traumatic	I	I
Total	150	237
Diseases of the Trachea and Bronchi:		
Asthma	6	13
Bronchitis		
	258	363

Conditions	Cases	Conferences, Examinations, and Treatment
chronic	3 134	3 150
Total	401	529
Diseases of the Pleura and Mediastinum: Pleurisy		
acute fibrinous	4	7
Total	4	7
Diseases of the Kidney and Ureter: Calculus		
ureteral	13	15
Colic, renal	3	3
Hemorrhage, renal	I	I
Nephritis	I	3
chronic	3	3
pyelonephrites	I	I
sub-acute	4	4
with edema	19	25
without edema	4	6
Nephroptosis	I	I
Nephrosis	2	6
Pyelitis	I	I
Total	53	69
Diseases of the Bladder		
Calculus	I	I
Cystitis (acute)	25	34
Incontinence	ı	I
Neurosis	2	2
Total	29	38
Diseases of the Urethra:		
Calculus	I	I
Urethritis (acute)	II	14
Total	. 12	15

Conditions	Cases	Conferences, Examinations, and Treatment
Diseases of the Generative Organs:		
Amenorrhea	3	4
Dysmenorrhea	53	74
Endocervicitis	I	1
Hydrocele	3	4
Leucorrhea	5	15
Menopause	7	II
Menorrhagia	14	20
Orchitis		
acute	5	8
traumatic	I	I
Phimosis	4	5
Pregnancy	12	22
Prostatitis	8	II
Spermatocele	I	I
Testicle, undescended	5	5
Varicocele	5	5
Total	127	187
Diseases of the Breast:		
Mastitis (acute)	4	6
Total	4	6
Anaphylaxis:		
Hay fever	2	2
Urticaria	3	3
Total	5	5
Abnormalities of Urine:		
Albuminuria orthostatic	I	I
Glycosuria	1	I
Polyuria	I	I
Total	3	3
Unclassified Diseases:		
Fatigue	14	17
Ingrowing toe nail		20

Conditions Cases	Conferences, Examinations and Treatmen
Low vitality 4	8
Malnutrition 23	48
Narcolepsy	r
Nausea	3
Total	97
TOTAL	14,411
iscellaneous:	
Audiometer tests	7
Baking treatments	185
Conferences (medical problems)	1,232
Diagnostic examinations	580
Electrocardiograms	62
Infra-red treatments	189
	42
Sputum tests	2,812
	728
Surgical dressings	
Surgical dressings	568

SUMMER SESSION, 1929

Total number of treatments, conferences, etc.		
(not included in above classification) .		5,503
Grand Total		26,319

INSTITUTE OF CANCER RESEARCH

ENDOWED BY GEORGE CROCKER

REPORT OF THE DIRECTOR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

Sir:

I have the honor to submit the seventeenth annual report of the Institute of Cancer Research.

With the shifting of the cancer death rate into second place on the mortality list, being exceeded only by heart disease, popular interest in the subject becomes each year more acute. The newspapers are carrying a large amount of educational and informative matter and also, unfortunately, are apparently compelled to print as news a considerable amount of matter which should properly appear in the advertising columns and be paid for as such. An unfortunate illustration of the power of the press has been the stampeding to the west coast of a large number of cancer patients in order to obtain injections of a fluid which even the originators did not claim would cure cancer. Nevertheless, the press reports were so lurid that many credulous people were deceived into thinking that an actual cure was promised. The delusion was not limited to the so-called lower classes. Even highly intelligent professional people were led to believe that at last something wonderful had been discovered. But the only cancer cures which have survived in the hands of the profession for more than a year or so have been surgery and radiation. The short duration of the life of a patient afflicted with this disease brings rapid disillusionment to the public when a cure is not forthcoming. All of this publicity has, however, a side which will ultimately benefit the race, for it has interested people who are generous and see with sufficient clarity that the only way in which cancer ever is to be cured is by exhaustive and time-consuming research as to the nature of the disease; and when that fundamental problem is solved, it will be time to look for a cure. Nothing will be gained by rambling, guesswork investigation by incompetent students of the subject. If the money which was wasted by those who journeyed to California this year had been devoted instead to research, it would almost certainly have shortened the period which must elapse before we know that the varieties of cancer which are not curable at present may ultimately yield to our attack. How little is available for research on cancer is shown by the fact that not over four hundred thousand dollars a year is spent on that subject in the entire world. Many large corporations spend five times that amount annually on commercial research.

The Institute has received during the year a number of donations, which are not only generous in amount, but especially valuable in that the sum given was for immediate expenditure to expedite the development of various research problems. This is especially satisfactory as such sums can be applied directly to the salary of competent workers and not be consumed in overhead, for the ample equipment of the Institute, both instrumental and in the form of experimental animals, permits of more research than our present salary budget will allow.

The Institute continues to furnish animals grafted with a variety of tumors to many laboratories and individual investigators throughout the country and also abroad. The list of those receiving such inoculated animals is now so long that space will not permit its printing.

Professor Wood and Dr. Krehbiel have continued their investigation on the distribution of colloidal metals, especially lead, in the organs of tumor-bearing mice and rats and have published a short preliminary communication showing that after injection of minute amounts of such metals it is possible to find traces of them, both in the tumors and tissues of the body by suitable technical procedures.

Dr. Krehbiel has continued his work in testing a large series of lead preparations of various types produced by a group of chemists working on the subject. The method consists of injecting into the veins of an animal bearing a known tumor increasing doses of the chemical which has been synthesized and then twenty-four or forty-eight hours later killing the animal, slicing across the tumor and comparing the damage produced with a control tumor of the same strain and with a tumor which has been treated with the original preparation of lead devised by Professor W. Blair Bell of Liverpool. However, it may be recalled that Ehrlich tested six hundred and six compounds before he discovered salvarsan. yet while the problem is more difficult with cancer because the disease is not a parasitic one, it is far too soon to discontinue such investigation, for it is perfectly possible that a lead compound will be discovered which is highly toxic to the tumor and not so toxic to the animal which bears it. Should this be accomplished, the treatment of cancer by medicine will be in sight.

A problem of some practical interest was finished during the year by Professor Wood. This was the proof that purified mineral oils which are used largely in medical practice have no power to cause cancer. A good deal of apprehension has been excited by the publication from England of a large series of examples of cancer occurring in workers in close contact with certain types of lubricating oils. The wide circulation of these facts in the daily press of this country naturally gave rise to a certain amount of apprehension, though the fact that literally tons of vaseline have been smeared on human skin in the last twenty or thirty years might have furnished sufficient evidence that the purified oils were harmless. This proved to be the case. Mice which were known to be susceptible to cancer were painted with the oil but remained in perfect health. Rats also were fed oil for a long period without any deleterious effect being noted. The public can, therefore, safely return to their mineral oil diet, for the product which caused cancer in crude petroleum has been removed by chemical processes before the medicinal oils are sold. English investigators have shown that the lubricating oils which in the past have produced cancer in those using them may be freed from this unpleasant capacity by relatively

simple chemical purification. It is probable, therefore, that the mule spinners' cancer, as it is called, will vanish from England under suitable legislative control, just as chimneysweeps' cancer, which was once a greatly dreaded matter has now, under suitable regulation, practically disappeared.

Professors Prime and Wood have been carrying on long series of studies as to the exact nature of the process which occurs when tumors are exposed to repeated small amounts of radiation as compared with single large applications. It is hoped that these studies, when finished, will be of practical value in directing human treatment with this physical agent.

During the year Professor Wood published a number of papers: one on the "Diagnosis of Cancer," read at the meeting of the American Medical Association last June, another on "Mortality Statistics," read before the Public Health Association at its meeting in January, 1930, and several papers on experimental matters, reference to which will be found appended.

Professor William H. Woglom has repeated the work of a group of French investigators who reported that the administration of adrenal gland from a rabbit that had undergone preliminary treatment with a mouse tumor would delay the growth of this tumor in mice. No inhibition could be demonstrated in the case of two of the tumors from the Crocker Institute stock.

This well illustrates the remarks made in last year's report reflecting the loss of time entailed in assaying the hasty and inaccurate work of untrained observers. Yet it is the duty of a large laboratory to examine carefully such reports as are not too preposterous, for our ignorance of the situation is so profound that no one can say from which direction enlightenment may ultimately come.

Professor Woglom has begun an experiment to determine in which phase of growth a tumor may be most advantageously transplanted, in the hope that some assistance may be given in the matter of obtaining better controls. At present a large number of experiments have to be rejected because the difference between the treated animals and the untreated controls is too small to be significant.

In the meantime, the investigation on immunity mentioned in last year's report is being continued.

During the last year Dr. Charles Packard has been using the eggs of the fruit fly in the study of three very different problems: first, to calibrate a commercial X-ray dosimeter; second, to measure the amount of radiation scattered backward from an absorbing medium; and third, to determine the effect of division rate on the sensitivity of cells. These eggs are so constant in their response to definite doses of X-rays that the proportion which is killed by an exposure can be used to determine the amount of radiation. When the eggs and a dosimeter are exposed at the same time it is possible to determine whether the latter is registering accurately or not. This study showed that the measuring instrument employed records correctly at voltages from 100,000 to 200,000, but does not at lower voltages. The eggs have also proved useful in determining whether the dosimeter is in good condition for use.

The amount of radiation scattered back from an absorbing medium is important in therapy since these rays add to the effect of the primary beam. How much they contribute to the total result was determined by exposing eggs first without any scattering medium, and then with a block of paraffin below them. The increased death rate in the latter case showed that the amount of scatter may be as high as 40 per cent at high voltages with a large portal. With lower voltages it is much less.

That cells are in general more sensitive when they are dividing rapidly has long been known. How much more sensitive they are can be determined by varying the temperature in which they develop. The division rate of the fruit fly eggs varies widely, being very low in the cold, and high at a moderate degree of temperature. If then they are radiated at low, medium, and high temperatures the quantitative effect of the rays can be determined. The experiments show that there is a real difference in sensitivity, those dividing slowly being definitely less sensitive than those dividing rapidly. The difference is much less than had been anticipated. A

further result of interest is that when these eggs are radiated at room temperature and then reared in the cold or in an incubator, the former show a much lower death rate. This suggests that the effect is in part determined by the environment of the radiated tissue after exposure. Living matter always tends to recover from injury; it may be helped or hindered in this process by appropriate means.

Drs. F. D. Bullock, M. R. Curtis, and W. F. Dunning are continuing experiments with Cysticercus disease of the rat and its frequent complication, Cysticercus sarcoma of the rat liver. Thus far over three thousand tumors have been produced. The data on the susceptibility to Cysticercus sarcoma is now available for ten to twelve generations of inbred rats. A statistical investigation of the genetic factors involved in the transmission of this susceptibility is in progress.

A statistical study of the occurrence of 520 spontaneous tumors in the large pedigreed colony of rats has been completed and will appear in the January number of the American Journal of Cancer. An inbred line of the Fischer strain was found to show the highest frequency of sarcomata of the mesenteric lymph nodes. A benign tumor of the thymus was confined in its occurrence to the Copenhagen strain. Each of these strains showed a definite hereditary tendency to its specific type of tumor. These strains and others which are not susceptible to either type of tumor are being continued and the appropriate crosses are being made to determine the exact mode of inheritance of the susceptibility to these tumors.

Several inbred lines of rats have been tested in regard to their susceptibility to transplanted tumors. Among the inbred lines in this laboratory one was found to be susceptible to the well-known Jensen rat sarcoma and negative to a transplanted Cysticercus sarcoma, while several lines showed the reverse susceptibility. Crosses have been made between these strains and their descendants have been tested for susceptibility to both tumors. This material is now being prepared for analysis.

A study has been made by Dr. W. F. Dunning of the effect of X-ray radiation on mutation rate, variability, and

fertility of the parasitic wasp Habrobracon juglandis (Ashmead). Individuals were treated for various time intervals with X-rays at the rate of 70 or 120 Roentgen units per minute, and at the several stages in the life cycle from mature eggs in the body of the mother to two- and three-day larvae. X-ray radiation was found to be effective in increasing the mutation rate not only of the individuals treated, but also of their descendants for several successive generations. X-rays were also effective in increasing the variability and increasing sterility of the treated individuals and of their descendants.

Dr. Jacob Heiman has finished an investigation of the effect of ultra-violet light as a possible agent in the production of skin cancer. Experiments were conducted on rabbits who were given large doses of ultra-violet light such as is used in the treatment of human beings, but no cancer was produced. This negative result does not necessarily contradict the positive results which were obtained by certain English investigators using mice, for the skin of the mouse is much more sensitive to irritation than is the human skin or that of the rabbit. Hence, while it is well known that prolonged exposure to the sunlight in those engaged in outdoor vocations may be followed by irritation of the skin which ultimately may develop into something of a more serious nature, yet the relative infrequency of this occurrence in human beings and the negative results in rabbits show that the effect is not constant and it may be due wholly to some constitutional susceptibility of the individual. Dr. Heiman is also continuing his study of certain benign tumors in rats and has succeeded in carrying on in several generations the fibrous and adenomatous portions of a benign rat fibroadenoma, thus showing the independence of the epithelial and connective tissue structures in such tumors.

For the last six months Mr. Ivan O. Lee has been working under Professor Wood's direction attempting to develop a spectroscopic method of analysis of minute quantities of animal tissues so that investigation of the changes in the relations between some of the essential elements of the blood can be carried out on small animals without too great dis-

turbance of the health of the individual. Hitherto it has been necessary to conduct such studies on pooled blood of a considerable number of animals, and the obtaining of the necessary quantity usually necessitated killing the animal, thus interfering with the further study of the condition under investigation. But the successful development of the method on which Mr. Lee has been engaged will permit of continuous studies on small animals and also will be applicable to human beings in making chemical blood analyses, for a drop will be all that will be required.

The enforced retirement of Mr. Harold M. Terrill from the laboratory owing to ill health unfortunately left the Institute without a physicist and seriously interfered with the completion of certain problems long under active investigation. It is to be hoped that this work can now be resumed as Mr. Frank M. Exner, who has had long experience in teaching and research in physics will come to us in the fall from his present place at Yale University. With this reorganization of the laboratory's activities in physics it is hoped also that some of the problems with regard to the growth of cells in culture media, which were abandoned in this Institute some ten years ago for technical reasons, may again be developed and the various correlated problems, both physical and chemical, for which such tissue cultures are admirably suited, may also be reopened.

Professor Woglom gave a course in the morphology of tumors at the Institute during the summer session.

The Journal of Cancer Research, which was first published in January, 1916, by the American Association for Cancer Research, and transferred in 1925 to the Institute of Cancer Research, will cease publication under that name January I, 1931. The last volume was No. xiv. Volume xv of the continuation of the Journal will appear from the Institute of Cancer Research under the editorship of Professor Francis Carter Wood, as the American Journal of Cancer. This continuation will be on a greatly expanded scale covering not only research but including also clinical material and extensive abstracts of all articles pertaining to cancer, the

intention being to make it an all-inclusive publication on the subject. This great increase in the scope of the *Journal* has been made possible by the generous support offered by the Chemical Foundation.

A list of the most important publications of the members of the laboratory staff during the year follows:

- "Spontaneous Tumors of the Rat," Frederick D. Bullock and M. R. Curtis. Journal of Cancer Research, 1930, xiv (March), pp. 1-113.
- "Biological Measurement of Scattered Radiation," Charles Packard.

 Journal of Cancer Research, 1929, xiii (December), pp. 373-82.
- "A Biological Calibration of an X-Ray Dosimeter," Charles Packard.

 Journal of Cancer Research, 1930, xiv (March), pp. 134-43.
- "Failure of Spleen from Tumor-Bearing Animals to Produce Cancer,"
- William H. Woglom. *Journal of Cancer Research*, 1929, xiii (October), pp. 305-12.
- "Carcinogenic Activity of Tar in Various Dilutions," William H. Woglom (with Louis Herly). *Journal of Cancer Research*, 1929, xiii (December), pp. 367-72.
- "Cancer as We Know It," William H. Woglom. American Journal of Nursing, 1930, xxx (May), pp. 543-49.
- "Krebsbiologie und Bestrahlung," Francis Carter Wood. Strahlentherapie, 1929, xxxii, pp. 455-64.
- "The Need for Cancer Morbidity Statistics," Francis Carter Wood.

 American Journal of Public Health, 1930, xx (January), pp. 11-20.
- "Roentgen Treatment of Uterine Fibromyomas," Francis Carter Wood. Journal of the American Medical Association, 1930, xciv (March 1), pp. 601-604.
- "The Noncarcinogenic Nature of Purified Mineral Oils," Francis Carter Wood. Journal of the American Medical Association, 1930, xciv (May), pp. 1641-43.
- "Experimental Investigation of Lead Therapy," Francis Carter Wood.

 American Journal of Roentgenology, 1930, xxiii (March), pp. 299-303.
- "The Contributions of Experimental Studies to Radiotherapy," Francis Carter Wood. Radiology, 1930, xiv (March), pp. 263-66.
- Chapter on Cancer, Francis Carter Wood. Americana Annual. Journal of Cancer Research. Francis Carter Wood, editor.

Respectfully submitted,

FRANCIS CARTER WOOD,

Director

REPORT OF THE LIBRARIAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to submit the following report for the year ending June 30, 1930.

The notable feature of this year has been the acquisition by the University of the Seligman library of finance and economics. This is the most important single addition to the Library in its history, and it stands out by its content and by its association. Annually in the yearly catalogue of the University has appeared, since 1893, a statement that graduate students in economics had the privilege of consulting the library of the Professor of Political Economy and Finance. This privilege has undoubtedly drawn to Columbia many and notable students, and this library has been the source for a continual series of learned treatises and scholarly publications. It is assured now, through the action of the University Trustees, that this magnificent collection will stay with us, to be a storehouse of scholarship and a testimony to the inspiring teacher who gathered these volumes together with knowledge, with patience, and with affection. There are few libraries that can show resources to compare with this library, and among those few, the Seligman library can justifiably claim a ranking with the foremost. The cases in which the books are shelved in the rooms in Schermerhorn Hall have been carefully planned with a view to the future, and in October we hope to have all the books in classified order and on record. Professor Seligman himself has taken a keen personal interest in the arranging of the volumes in their new surroundings, and his guidance has been of essential help.

On the same floor in Schermerhorn Hall three rooms have this year been allotted to the Library to form a rare book division. This will make possible a development of fundamental value particularly to students of the School of Library Service. The whole history of printing and of the arts of the book will have in this division of the library fit and proper representation. It is a successor of the Bibliographic Museum of some twenty years ago, with the advantage of better space and larger resources upon which to draw. The particular training and experience of Dr. Lehmann-Haupt, who assumes charge of it, will bring this branch of the Library into its full capacity of usefulness from the start.

The occupation of the new wing of Schermerhorn has given the libraries in this building new opportunities for organization and expansion. Steel stacks in the basement make it possible to keep the entire geological collection of books together, and the geology library is now in close contact with all the geological books and the geological maps. The experience of the new conditions so far has been most satisfactory to readers and to staff, and the coöperation of Professor Berkey in the alterations has been given without stint and with understanding.

The psychology reading room is now adequate in space for readers, and anthropology has come in without disturbance and to good purpose. Zoölogy and botany are combined under one control and the arrangement of the rooms has made it possible to effect an extension of hours and some economy in supervision. Every volume in the building has been moved at least once in the course of these alterations, and the impediments in service, though numerous, were surmounted with cheerful willingness. Naturally the dust and disorder inevitable to such periods brought a great deal of extra work to the janitorial staff of the building; rooms could be cleaned twice a day, and yet they would not stay clean. The general attitude of those who cleaned and those who dusted should be mentioned for high commendation. They went far to meet the desires of librarians for desks that shone brightly and floors that were free from dust. Similar willingness under similarif not quite so extensive—conditions is to be recorded in the new College Study in Hamilton Hall. The alterations here

were put through with great care as to every detail and with comforting punctuality. There is now room for readers, books, and staff, and an atmosphere of quiet study has been introduced into the reading rooms. This has undoubtedly been appreciated, and less effort is required for enforcement of the necessary regulations.

Some success has been had towards a tradition of selfrestraint in a library room, and if we can encourage readers to keep quietness in themselves and to promote quietness in others, one of our library problems will be far towards solution. Still, the real library problem in an American university is not a question of books, or of buildings, or of service. Books can be obtained, buildings can be erected, and service can be rendered. The fundamental question is that of the students' time. The scantiest possession of a modern student is his leisure time and perhaps this is particularly evident at Columbia. Without adequate leisure, the virtue of casual reading departs and a browsing room promotes somnolence without aiding digestion. The statement in a newspaper that "probably without exaggeration ninety per cent of the reading that is done to-day not only kills thought but both begets and caters to habits of intellectual indolence" may have justification. This writer in the London Times advocates bridge as intellectually preferable, but there is, it would seem, always the chance that ninety per cent of the bridge that is played is similarly enervating. Conversation is admittedly the best tonic, but conversation that is not leisurely loses much of its tonic qualities. The student must have sufficient time for reading without a purpose if the University Library is to mean all that it might mean, and for conversation without an object, if the full benefit of a university education is to be his. Reading is too generally confined to class and seminar requirements, and the only remedy is more leisure. And there is no more leisure.

One innovation during this last year has been an organized attack on the question of dusty books. Thanks to the willingness of the Department of Buildings and Grounds, the responsibility for general dusting has been placed on the shelf

department. Two women and a man with a vacuum cleaner have been added to the staff and the results of their directed activity have been gratifying. All books in the General Library have been gone over twice, and many of the leather bindings have been treated with preservative oil. Carelessness in dusting can result in great damage to tender bindings and in much disorder on the shelves, and continual supervision is essential, if the improvement in conditions is to be without regrets. Mechanical devices for cleaning books are many, but it is to be doubted whether the hands of a careful woman are not the most efficient instruments for the purpose.

Shelf reading throughout the library goes on steadily, and the completion of a general inventory shows a decrease in the number of missing books, which is satisfactory. It is very difficult to decide when a book is definitely and forever gone, and that the records of it should be withdrawn. Volumes are continually replaced, as calls for them come in, but they are recorded as extra copies. Ninety-one books that were not on our shelves in inventories of 1926 and 1928 have been returned to the shelves since January 1, 1930. During the past year, one volume borrowed thirty-eight years ago has been returned, and three volumes which have been resting on the shelves in a home in Virginia for twenty-five years have come back. In both these cases most sincere apologies were tendered. These apologies, however, unfortunately cannot be readdressed to the people who may have been affected.

Another year's growth has brought, by that much, an addition to the library closer to a definition. With us there is the difficult fact that the present building is situated exactly where it should be. It is central, quiet, and reasonably dustless. The defects of the building are serious, but minor in importance to those that a better building in a less appropriate place would possess. Libraries suffer from the veto of an architect perhaps in a greater degree than any other institution, and an architect's veto is of astonishing validity; it is a continuous present with little need for any future tense. Much study is essential, and much has to be considered. The fundamental question is assuredly, "Where should the library

be placed?" and the question has but to be put to be answered.

There are other vetoes that the Library experiences besides that of the architect; there is the financial veto, and it should be recorded that at Columbia the Trustees continue their wise policy of generous provision for the University Library; there is also the censor veto, which this past year has come much into discussion. Opinions differ about it, but in general all censorship arguments seem to bring out the best in the worst of men and the worst in the best. There are, it should be remembered, more than two categories of men.

Censorship enactment will never be perfect, and the activities of the censor will always be disturbing to individual confidence. Unfortunately there is no place for hope in flexibility, for censorship that is flexible is obviously not censorship at all. Censors, of course, are born, not made; inspired, rather than instructed. It is against experience to expect that such intense energy should be accompanied by inclusiveness in intelligence. There are probably five or six persons in whose judgment confidence might be reasonably had, but these persons would most certainly decline to act in any censorial capacity. The tragedy is that those who are mentally and morally equipped for the job see the inherent impossibilities of it; and the comedy is that the very benevolence that does assume the duties falls very far short of universal knowledge and comprehensive wisdom. Censorship is not political, but is always dependent on the understanding of the duties of a father, a citizen, and a legislator. The duties of a father are assumed to be identical with the duties of all fathers, and even bachelor legislators are deeply concerned with the "minds of children in the formative and plastic period." The psychologists and the authorities in charge of nursery schools and kindergartens seem, however, to place the period of real plasticity very early in life, too early in fact for any possible literary corruption by the classic corruptors. The market for a nursery edition of Boccaccio or Rabelais is less than negligible, and the illustrations in Foxe's Book of Martyrs probably have done more real harm to the child mind and the child imagination than both of these put together. Yet who would submit Foxe to any collective nonreligious censorship?

In a publisher's folder setting forth the qualities of a new book, reference is made to the author's finding a certain volume "in the Columbia University Library, no doubt in that silent reading room that has become the spot in which so much youthful talent has become fired," and deciding to make that particular subject his own. This is a casual remark, and possibly without adequate justification. However, it is not necessary to discount it entirely because it was made incidentally, or because it does happen to sum up our high hope.

Thanks to a special allotment made for development in the Library, we have completed many sets of periodicals which were incomplete, and we have done much adding of new sets. In these additions, the endeavor has been to avoid duplicating sets that are already in the city, and therefore reasonably available. Naturally the Library has to put much trust in the efficiency and the care of dealers that handle periodical sets, and it has been found that in general such trust has not been misplaced. We have tried to obtain from a dealer in New York our modern German books in order to avoid delays. Of a total of 1,118 titles sent to him, he could only supply 277 from his stock, which is rather a disappointing result. This new practice has added to the work of the accessions department, but it has from time to time brought books in time for some important use. During the year we advertised for 1,200 books, receiving 893 replies. Some replies came in response to a third or fourth insertion. Of the 18,073 orders placed, 2,517 were still outstanding on July 1, and this record can be taken as a creditable showing. Much work has been put in among the dissertations and official bulletins in the sub-basement rooms, and they are now in a more orderly and convenient shape.

Among the gifts during the year was a collection of papers and personal accounts from Mr. H. L. Sulfridge. These were part of the private and business records of Robert Stanard, a lawyer of Virginia, and covered the years from 1812 to 1846. A few of the later checks are signed by Robert C. Stanard,

who was a college friend of Edgar Allan Poe, and it was Robert Stanard's wife, Jane Stilth Stanard, who kindled in Poe the first purely ideal love of his soul.

The Library has taken two minor responsibilities of some novelty. The music library has a collection of phonograph records that are charged out on loan to students in the same fashion that books or music scores are charged, and Professor W. C. Greet has made for us, for historical purposes, some records on his voice apparatus. We have now the actual voices, as well as the portraits, of some of the Columbia dignitaries whose pictures were presented to the University on the occasion of the recent celebration. He has also preserved for us some speeches of national, international, or local interest, taking them from the broadcast. In years to come these will be very certainly regarded with esteem.

Professors Westermann and Keyes are continuing their work on the interpretation of ten Theadelphia rolls which form the most important single group of papyri in the Columbia collection after the group from the Zenon archive of the third century B.C. It is now possible to say that these documents from the town of Theadelphia will add considerably to our knowledge of the operations of the banks and the granaries in antiquity in the double economy system of using money and kind side by side. A group of four receipts for wages made out by guards and policemen, and fifteen receipts made out by land and water transporters are of outstanding interest in this large mass of materials.

Professor Westermann has recently published three receipts from the Columbia Library group of documents from the Zenon archive, which appeared in the *Journal of Egyptian Archæology*, of London. By means of the Columbia receipts he was able to distinguish and classify similar receipts which have not been understood heretofore.

During the year most of the Columbia papyri have been placed under "shatter-proof" glass for permanent preservation. Before the papyri could be placed between the sheets of glass, those which were wrinkled or folded were damped, straightened, and pressed flat. The New York Public Library

kindly put at our service their expert knowledge in developing the method of damping out and straightening this fragile material. Their advice was invaluable.

A committee was appointed at the end of 1929 to consider the regulations governing entries in the University Bibliography. The first separate issue of this publication, the issue of 1909, was contained in thirty-five pages, while the issue for 1928 took 125 pages. Some provision for restriction in scope and plan seemed essential. The report of the committee was made early in 1930, and the bibliography for 1929 was prepared and edited along the lines of the report. The bibliography is to be regarded as a concise annual listing, without avoidable duplication, of those publications of the University and of its officers which are significant in themselves, or representative of the University's position and development as an institution of learning. Compared with the 1928 bibliography, the 1929 issue has 2,067 entries, as against 2,319, a decrease of 252. It is not believed that the new regulations will affect the utility of the Bibliography at all.

The rebinding of the Johnson books has been carefully put through, and the gallery in which they are kept bears no longer a reproachful air. The letters and books of Brander Matthews have been gone over and sorted; his letters from Roosevelt have been bound into two volumes, those from Andrew Lang in three volumes, and those from H. C. Bunner in two volumes. In examining the correspondence of Brander Matthews, the outstanding impression is that letters to him and from him were intensely personal letters, whether they concerned him as literary critic or as professor of English. He undoubtedly succeeded in maintaining a large proportion of this personal touch in his lectures, and this faculty must have given especial distinction to them.

The newspaper clipping bureau, owned by the School of Journalism, has been taken over by the Library. It contains about seven hundred thousand cuttings, which may be used in the "morgue" by any member of the University. The collection dates from 1885 and is a valuable source of informa-

tion for material not easily obtained. While the "morgue" is especially useful to the students of journalism, it has proved of much value to graduate workers in various departments.

The library of weights and measures that has been given to the University by Mr. S. S. Dale in memory of his father and mother is an addition of much importance. It is only in recent days, when infinity of distance and of time is a matter of more or less popular discussion, that accuracy in weights and measures has the ground as against convenience. This Dale library will hold on its shelves material in which the essential basis of scientific thinking has been studied from century to century.

In the medical library the figures that show the use of the library both by books and by readers have doubled in the second year in the new building. A satisfactory arrangement has been made with the library of the Academy of Medicine, which has helped materially in aiding research workers. A complete overhaul has been made of the binding for all medical sets, and one distressing cause of error has been removed. A routing service through departments has been provided for current periodicals, and eight departments are at present making use of this. The size of the Medical Center makes some such provision an absolute necessity, and much care is being exercised to insure punctuality and dispatch.

Mr. Price has made a vigorous start as Law Librarian, and the staff of the law library has worked with good will and without friction. The loss of Mr. Schmehl after many years of devoted labor is one that leaves a gap, but he is to be sincerely congratulated on his new and important position as librarian in another law library. During the year the Richthofen collection, which was purchased a year ago, has been examined and distributed. This collection came from the library of Karl Otto Johannes Theresius von Richthofen (1811–1888), a well-known teacher of law in the University of Berlin, and reflects his varied activities as well as his particular specialty, namely old Frisian law and early Dutch and German legal history. Approximately twelve hundred

volumes in this library are legal, and the rest are historical source material.

The rebinding of session laws, codes, and compilations for the United States and the various states thereof, and for British and colonial possessions, was given special attention. There is still a great deal of binding, for the most part consisting of old leather bound sets little used, to be done. Gradually, as these old leather volumes are replaced with buckram bindings, it is hoped the rebinding will be largely confined to the reading-room sets.

The catalogue of the law library has obtained a reputation as one of the best in the country, and pains are taken to keep up the present standard of excellence. It has been a process extending through years, and the end of the revising and re-carding is in sight.

The legal publications of Brazil, Chile, Colombia, and Uruguay are poorly represented on the shelves at present, and a reasoned program is being developed to remedy these blanks. Constant additions are being made to the historical side of law, and unfortunately the prices of such books are apt to run high. A copy from the Britwell Court library of the Acts and Constitution of Scotland, 1566, might deserve especial mention.

The library of the School of Business has prospered during the past year under Professor Stockder's direction, but at the end of the year he decided that he would not be justified in continuing to combine teaching and library supervision. He has promised that his interest in the library will not cease, although his technical responsibility has come to an end. It has been a most happy and profitable arrangement for both School and library, and the staff which he terms, and accurately terms, "valuable, competent, and excellent" will miss him.

The history of the School of Business library started with the School in 1917, and it was to cover the field of business and business life in the world at large. The definition of business as a subject for instruction and research is not simple, but in the main the different aspects of business can be listed as follows: accounting, banking, finance, transportation, economic geography, statistics, insurance, business law viewed very generally, real estate, marketing, advertising, labor and personnel management. This list is no small program for any library, and development has unavoidably been unequal and spasmodic. Our periodical list is a fully representative one, and carefully watched. Fourteen financial services are received currently for the study of investments, and these services have had a natural attraction at certain periods for non-business students. When prices on the stock exchanges were rising rapidly and speculation became riotous, these services were studied very intensively by some graduates of Columbia for their own guidance, and it became necessary to protect the interest of the students.

The library of the Seth Low Junior College in Brooklyn has encountered some serious difficulty in a matter which should be one of minor importance. The offenders have not been unruly or boisterous, and their offense has not been more serious than conversation in the library; but on the other hand, never could conversation in a library be made a more serious offense than they have made it. In every way the Acting Director has helped in attempts at eradicating this nuisance, but it would be vain to say that either he or the librarian is satisfied with the situation as it existed at the end of the year. Measures of some stringency are planned for the future.

Mr. C. C. Wang has had charge of the Chinese collection during the past year, and the purchases that he made on his visit to China have come in. Some 233 new titles in 4,432 pen are on the shelves, among them the quarterly lists of officials for 1880 to 1910, and a series of lists of candidates. As no birth records were, or are, kept in China, these lists are the only reliable sources for establishing biographical details. Mr. Peake, of the Department of Chinese, secured for us a set of the Yü che Hui Ts'un, which are authoritative for Chinese history under the Manchus. Some few volumes have been bought from the local bookshop in Chinatown, but since their stock is in general confined to recent fiction and poor editions of the classics, the existence of this shop cannot take the place of an agent in China.

It is essential that many analytical entries should be added to the catalogue, in order to bring out the full advantage of the collection in various Chinese anthologies. A complete record has been made of the *Ssu Pu Ts'ung K'an*, but this is but one of the anthologies. At least thirty Chinese students use this room each day, and they have found intelligent personal assistance from Mr. Wang and Mr. Chow.

The year which has just passed has been important in many ways for the Columbiana collection. Last October, the 175th Anniversary celebration gave us opportunity to bring the history of the University conspicuously before the public. The exhibition which was displayed in the Avery Library required months of thought and preparation, and displayed the past of the University in a very graphic fashion. A number of feature articles appeared in the newspapers of the city, and it is safe to say that a great many people in the University and outside now have a better notion, however hazy, that we have a Past. Since Columbia does not occupy its original campus, and the original buildings have long since disappeared, the casual visitor is likely to get the impression that the University is a great mushroom growth without any history, tradition, or sentiment. It is the function of Columbiana to correct such an impression, and it is a far more difficult task than it would be at any of the other historic American universities.

One very advantageous result of the 175th Anniversary celebration for Columbiana was the revival of the *Columbia University Quarterly* from its "ten-year trance of inactivity." The curator being the assistant editor of the *Quarterly* makes possible the frequent publication in its pages of material relating to the history of the University, and advantage has already been taken of this fact.

Probably the incident of most far-reaching importance for Columbiana this year was the inauguration of the Columbiana Endowment Fund. This was begun by Mr. James Duane Livingston, '80, and Mr. William Warren Bliven, '78, after consultation with the curator. At Commencement, 1930, the Class of 1880 presented \$5,000 to the fund, and

somewhat more than a hundred dollars has been received from individuals. It seems quite possible that at least \$50,000 will be raised in the next few years. It is unfortunate that Columbiana will not be able, immediately, to move into larger quarters and show the results of its increased income. Donors and prospective donors like to see results. However, much can be done in the way of publication, and it is hoped that items such as the *Black Book* can be printed from time to time.

The acquisitions for the collection probably represent a normal year's accumulation. Professor J. Leslie Hotson called attention to some valuable records in the Public Record Office, London, of the dispute between the Governors of King's College and Sir James Jay; photostat copies of these were secured and will permit a correct judgment at last upon this benefactor of the College.

By the system of inter-library loans 1,107 volumes were lent to 155 libraries, and 444 volumes were borrowed from forty-five libraries; besides this, 114 volumes were borrowed by us from scientific libraries in the city, of which number the American Museum of Natural History lent us 67.

In the bindery, leaves were cut in 9,817 volumes; book pockets were affixed in the back of 55,809 volumes; bookplates were affixed in front covers of 58,215 volumes and new book cards were made for 987 volumes. The income from fines for lost books and belated returns amounted to \$2,193.44, and photostat work brought in \$1,807.12.

There were seventeen showings of different issues of the Yale University films.

The exhibitions in Avery Library during the year were as follows:

July. Thesis work of students in School of Architecture—McKim

Fellowship Competition. Carl Troedsen, winner. Continued from June.

Colored plates on Chinese embroideries.

Plates on modern sculpture. Airplane drawings by F. Lemon.

August. Continuation of July exhibitions for first part of month.

September. Books and manuscripts printed before 1850, from the Montgomery Library of Accountancy, held for the International Congress on Accounting.

Twelve etchings from the Keppel Memorial Collection.

October. Part of exhibition of books and manuscripts from the Montgomery collection continued for first part of month.

Sixteen etchings, work of Max Feldman, architectural student.

Columbiana exhibition illustrating the history of the

Columbiana exhibition illustrating the history of the University, arranged for the 175th Anniversary of the University.

November. Columbiana exhibition continued.

December. Brander Matthews collection.

January. Brander Matthews collection continued.

Water-colors, work of Professor Joseph Lauber, of the School of Architecture.

February. Brander Matthews collection continued.

Professor Lauber's water-colors continued.

Some work, sketches, etc., done by the students of Professor Lauber.

Alpha Rho Chi, architectural fraternity, traveling exhibition of water-colors and etchings, done by members.

March. Professor Lauber's and student work continued.

Original drawings by Grevin for costumes of the opera "Orpheus."

Life-size photographic portraits of prominent persons, taken by Mr. Robert H. (Bob) Davis of the Sun.

April. "Bob" Davis' photographs continued.

May. Pulitzer Prize awards.

Holbein reproductions borrowed from fine arts library for Mr. Dick of the English Department. Exhibited in collaboration with an English course.

Thesis work of students in School of Architecture—Schermerhorn Fellowship competition, "a municipal auditorium." Geoffrey Platt, winner.

June. Exhibits of previous month continued.
Plates on regional costume of France.

The record of gifts to the University Library is again gratefully set down. Sums of money were given for specific purposes by:

Oscar Dressler, for the purchase of German literature \$100.00 Rev. Acton Griscom, for the Joan of Arc collection 234.65 Henry Heide, for the purchase of German literature 100.00 Henry Janssen, for the purchase of German literature 100.00 Otto H. Kahn, for the purchase of German literature 100.00

James Loeb, for the purchase of labor William G. Low, for the internationar R. H. Montgomery, for the Montgoo G. Oberlaender, for the purchase of Leonora Speyer, for the purchase of Carl F. Stiefel, for the purchase of Ferdinand Thun, for the purchase of	al law collection
From officers of the Univ following gifts:	versity we have received the
President Nicholas Murray	William J. Gies 765
Butler 1,144	Luther C. Goodrich 2
Charles S. Baldwin 4	Louis Herbert Gray 184
Adriaan J. Barnouw 29	Evarts B. Greene 50
Salo Baron 6	Robert M. Haig I
Benjamin H. Beckhart 2	Charles A. Harriman
L. A. Behr 31	Philip M. Hayden I
Charles P. Berkey 27	Alice I. Hazeltine 3
Franz Boas 71	Ellwood Hendrick I
Marston T. Bogert 1	Joseph L. Holmes 2
James C. Bonbright 1	Herbert B. Howe
William A. Boring	Francis Huber 32
Paul F. Brissenden I	A. V. Williams Jackson 12
Roscoe C. E. Brown I	Douglas W. Johnson 2
Wendell T. Bush 92	Adam Leroy Jones 2
Gary N. Calkins 221	Corliss Lamont 19
William Campbell I	Frederic S. Lee 303
Hans T. Clarke 101	Harold J. Leonard 6
Cornelius G. Coakley 1	Armin K. Lobeck 1
John J. Coss 19	Nelson G. McCrea 2
John W. Cunliffe	Roswell C. McCrea 2
William Darrach 539	Joseph D. McGoldrick 5
A. Raymond Dochez 189	Ralph H. McKee 2
Edward M. Earle 32	Clarence A. Manning 4
Willet L. Eccles	Walton Martin
Irwin Edman	Daniel G. Mason 13
James C. Egbert 38	R. F. Miller 2
Haven Emerson 74	Robert H. Montgomery 5
Frank D. Fackenthal 1	Douglas Moore
Robert H. Fife	John Bassett Moore 8
Colin G. Fink 10	Isadore G. Mudge 38
Father George B. Ford 7	Paul H. Nystrom 9
Dixon Ryan Fox	Alfred Owre 47
Frederick P. Gay 46	Walter W. Palmer 281
John L. Gerig 5	George B. Pegram 3

Carnegie Endowment for the Advancement of Teaching

29

	0
Howard Whittemore Memorial Library and Reading Room	13
National Library of Peiping	6
New York Public Library	34.
Mayo Clinic	2 I
Individual donors to whom our gratitude is due are:	
Columbiana:	
R. A. Anthony 14 scholastic medals awarded to his father	
Anna M. Cooley	
Nicoll, Henry— Address 1869, and Ordronaux, John—	
History and philosophy of medical jurisprudence	
Mrs. Mortimer L. Earle	
Satin embroidered waistcoat (Dr. Nicoll, Professor of Chemis-	
try, 1790–1796)	
3 books	
Mrs. Jaspar J. Goodwin	
Silver cup won at regatta of 1874	
Mrs. Iselin	
Diploma giving degree of A.B. to John Jay, May 15, 1747,	
signed by Myles Cooper	
M. H. Sayre	
6 medals awarded to Reginald Sayre by the Intercollegiate	
Amateur Athletic Association of America	
• •	10
Wesleyan University Library	
Pamphlets Columbiana	8
From the library of:	
Dr. J. G. Curtis	00
	3.
Dr. George S. Huntington	9
James F. Kemp	3
Brander Matthews, estate of	
Books	
•	204
Autograph letters	
Russell G. Smith	77
Pamphlets from the Island of Jersey. Lettre à la Bourgeoisie,	
1854. Lettre aux proscrits, 1855. Discours des citoyens	
Victor Hugo, Amiel et L. Pianciani, 1855. À la France 1853.	
Lettre aux Bonapartistes	
	18
	70

LIBRARIAN	501
L. DeBosis	110
Robert Dollar	4
A. D. Flinn	614
Christine Galitzi	
Rumanian newspapers and publications	44
J. P. Gifford	
Russian books	182
Mrs. G. H. Graves	136
Mrs. Isaac A. Hourwich	75
C. C. Kalbfleisch	28
E. A. C. Keppler	591
Dr. R. Kingsley	42
H. E. Kudlich	
Medical books and periodicals	488
Dr. G. F. Laidlaw	141
Edmond Lefevre	3
C. G. Massa	3,515
From the widow of Louis F. Massa	501
Mary Purroy Mitchel	
Letters from Mrs. John Mitchel 1851-1855 from Van Dieman's	
Land as the wife of a political exile and then from Brooklyn,	
whither they had escaped.	
G. A. Pfeiffer	
P. F. von Siebold's Nippon in four volumes	4
Rudolph Schroeder	34
Mrs. Calvin Thomas	32
Doris Thorne	
Henry Arthur Jones, Judah. (Manuscript of play)	
A. A. Veblen	
Veblen—The Valdris Book	
Valdris Helsing 1903–1910	
Samband 1910-1917	
M. J. Waterbury	
Autograph letters of:	
Silas Wright	
Samuel J. Tilden	
Horatio Seymour	
Horace Greeley	
Dr. H. L. Wheeler	4,196
The general statistics of the University Library ar	e as
follows:	
Accessions:	
Volumes added:	
	8,818

C 1 1 4 I	0
School of Law	8,352
School of Medicine	3,065
Avery Library	364
Barnard College	3,010
Teachers College	4,044
College of Pharmacy	250
Total	47,903
Total of volumes in University Libraries, June 30, 1930 .	1,214,524
Gifts:	
Pamphlets and volumes	54717
•	54,717
Exchanges:	
Pieces received	7,314
Pieces sent out	16,339
Total	23,653
Orders placed	18,073
Serials checked	66,660
	00,000
Cataloguing:	
Cards made and filed:	
General Library	52,343
Departments	34,380
Barnard College	5,740
Law Library	19,962
Medical Library	8,280
Replaced (including Law)	11,275
Depository	44,908
Autograph letter file	600
Autograph letter me	000
Total	00
	177,488
Volumes catalogued	57,101
Volumes recatalogued	8,342
Volumes lost or withdrawn	1,673
Binding:	, , ,
9	
In Library bindery:	
Books bound	1,591
Volumes repaired	4,127
Pamphlets bound	15,862
Total	21,580
Outside of library:	
77.1	22.040
Volumes bound and rebound	23,040
Telel	
Total	44,620

Circulation:

Volumes supplied from loan desk, including renewals		
Volumes in libraries, loaned and used	٠	1,468,762
Total recorded use of libraries		1.628.005

Respectfully submitted,

ROGER HOWSON,

Librarian of the University

June 30, 1930

REPORT OF THE SECRETARY OF APPOINTMENTS

OCTOBER 1, 1929 TO SEPTEMBER 30, 1930

To the President of the University

SIR:

I have the honor to present herewith a record of the work of the Appointments Office from October 1, 1929, to September 30, 1930.

The maintenance of an employment service, adequate to our needs, has been made difficult by the prevailing economic conditions. The summary which appears on the next page shows clearly that our students and graduates have not entirely escaped the consequences of hard times. In practically every division of our work the number of registrants increased with no proportionate increase in the number of positions offered.

In the division of part-time employment we were able through concentrated effort to increase our service to both men and women. A large proportion of our placements was made early in the academic year, before the present conditions of unemployment began to develop. In most cases our students were able to retain their positions until well into the spring, when the continued depression caused many to be thrown out of work, and in addition made the matter of summer employment a difficult problem.

For a number of years our efforts in the field of student employment have been largely directed toward the development of those opportunities for which student-workers seem peculiarly suited. We have sought positions where specialized abilities and training would be an asset, and where the working hours made it probable that only a student would promise any degree of permanence. It has seemed reasonable to assume that the development of such fields would be advantageous

	Regist	ration	Posi Offe		Inter	views	Posi	filled			
	1929- 1930	1928- 1929	1929- 1930	1928- 1929	1929– 1930	1928- 1929		1928- 1929	1927- 1928		
Full Time Men	1114	879	801	1174	2139	2188	246	287	272		
Full Time Women	1167	876	473	686	1262	1264	214	229	171		
Full Time Teaching	977	1182	411	653	639	1224	68	70	85		
Total Full Time	3258	2937	1685	2513	4040	4676	1676 528		528		
Part Time School Year Men	1435	1466	2876	2869	3594	3422	3050	2663	2250		
Part Time School Year Women	980	822	1305	1396	1728	1932	1176	1151	1117		
Summer Men	1485	1182	1017	1159	1922	1737	1737 866		1737 866		1090
Summer Women	1110	698	579	649	1042	1101	451	427	368		
Total Part Time and Summer	5010	4168	5777	5961	8286	8080	5543	5221	4825		
Grand Total	8268	7105	7462	8474	12326	12756	6071	5807	5353		

to us in providing a number of permanently available opportunities, which would not be subject to outside competition, and which might regularly be refilled whenever graduation or withdrawal from the University produced vacancies. The results of this policy have been helpful until the past year, when the continuance of the economic depression has resulted in, first, the replacement of student workers in many organizations by regular employees formerly on a full-time basis, and, second, the actual abolishment of many part-time jobs.

The outlook at present is most serious despite this year's gain in the number of positions filled. It is unlikely that a similar increase can be achieved during the coming year. Consequently every precaution must be taken against permitting students to register with the expectation of earning a large part of their expenses. An effort has been made this fall through the Department of Admissions and the Dean of the College to deter from registering those students whose financial situations are so acute as to render foolhardy attempts to earn their own way. Many have been advised to delay their entrance for a term or a year and others have been granted leaves of absences. Even so the number of applications for employment promises to be extremely heavy with no indication that the number of opportunities offered can be kept from decreasing.

Continued hard times have also seriously affected our senior placement program. For the first time in seven years this division showed a loss in comparison with the previous year. Although many of the large industrials and public utilities maintained their usual programs of employing seniors, the smaller corporations and such firms as advertising agencies, publishing companies, and financial houses offered practically no opportunities to the new graduates. Those New York law firms in which under normal conditions practically all of our law seniors of superior ability find ready employment offered few opportunities this year, and the problem of finding places for the surplus of recent law graduates continues to be acute.

The necessity of safeguarding the student-worker against the ill effects of overwork is a matter which constantly holds the attention of all those administrative officers who are concerned with our students' physical, scholastic, and financial welfare. To every prospective student who is confronted by the problem of self-support our advice is: Do not attempt to earn your way unless after careful and objective reasoning you conclude that your health, scholastic aptitude, and mental outlook all indicate the probability of success. Good health and a strong constitution are essential in meeting this double task. Superior scholastic ability and the ability to learn quickly are essential in insuring academic success under the handicap of outside work. Earnestness of purpose and a cheerful, resourceful, and adaptable nature are essential, else the sometimes excessive strain will produce depression, indifference, discouragement, and eventual failure.

Such advice, seriously and methodically offered, is usually received and pondered upon in the same spirit. We cannot stop our precautions there, however, for many prospective students are inclined to let their optimism and enthusiasm overshadow their judgment. Starting with a carefully planned system of interviews with those prospective students whom the members of the Admissions staff feel we should appraise and advise before they are admitted, our present program subsequently involves coöperation with the Dean of the College and his assistants, the Medical Officer, the Residence Hall authorities, and the loan and scholarship committees.

Following the physical examinations of all freshmen, the University Medical Officer furnishes this office with a rating for every entering man, indicating clearly the amount and kinds of outside work which his physical condition justifies. Subsequent improvements and retrogressions in individual cases are immediately reported to us. Thus, from the student's very entrance we have an accurate indication of his physical limitations with respect to outside work.

As soon as he is placed in what seems to be a suitable position, a memorandum is sent to the Dean's office, where the details of his employment are entered on his cumulative record blank and the memorandum passed along to his adviser, who notes the facts for future consideration in connection with the boy's scholastic progress.

When the mid-term marks are recorded the adviser scrutinizes with special care the record of each student-worker. If there are indications that his work is interfering with his studies, an immediate conference is held between adviser and student, and the advice and further assistance of the Appointments Office staff is requested. If the difficulty resolves itself into one of hours or kind of work an immediate remedy is sought in the form of another job. Sometimes the difficulty lies in the student's lack of ability to budget his time, in unsatisfactory living conditions, or in demoralizing outside activities, and a cure is usually possible.

When it is evident that a job with shorter hours is needed, yet the student cannot afford a reduction in income, the resources of the scholarship or loan committees are frequently called upon to ease the financial strain. The "round-up" meetings, held by the College Faculty after the mid-term grades are announced, are attended by a member of our staff as are the meetings of the College scholarship committee. The tie-up between our employment activities and the student loan facilities makes for effectiveness in both directions.

This close relationship among the various offices has produced worth-while results. Most of the difficulties which develop are detected before harm is done to the student and before it is too late to effect a remedy. At times it seems advisable that a man drop out of school, but under normal conditions a reasonably adequate and constant supply of jobs usually permits a solution without the necessity of withdrawal.

As I have indicated in many of my earlier reports, those students who on completion of their undergraduate work, seek employment in the commercial and industrial life of the country, are in large measure handicapped by lack of real information regarding various businesses, their requirements and their rewards, both financial and otherwise. The immediate and practical need is not for vocational guidance but for vocational information. With this thought in mind, a

careful study was made in the summer of 1929, of several hundred books, descriptive in one fashion or another of practically every business or profession into which college-trained men go, and about fifty volumes were selected as being suited to our purposes. This vocational bookshelf was obtained by the Dean of the College and installed in the office of the adviser to straight A.B. students. The material is constantly being consulted and has proved to be of genuine practical usefulness.

The past year has seen the establishment of what promises to be a most effective relationship between the University Dining Hall Department and the Appointments Office. Commencing this fall students will be employed in the dining halls only upon the recommendation of this office. Approximately the same relationship has been effected with the Columbia University Press Bookstore, the staff of which now consists largely of student-workers. Such arrangements are of great assistance to us in furnishing positions in which we can regularly and surely place those students to whom jobs are most essential. The certainty that such positions will be available enables us with a greater degree of confidence to plan our placement activities in advance.

I can also report that the student sales agency of which I spoke in my last report is now functioning under the direction of the bookstore management and is supplying worth-while employment for a group of students. The organization of a newspaper and magazine delivery service for the dormitories is about completed and several other desirable services are being considered. These agencies like the dining hall and bookstore positions, offer the advantage of being job opportunities which we can count upon from year to year.

Lack of employment and, more commonly, unexpected financial stringencies at home, brought the Advisory Committee on Student Loans many additional applicants during the spring semester. Whereas during the winter term we granted about the same number of loans as in previous terms,

the demands last February were so great that the committee considered it necessary to lend practically twice as much money as in any previous semester. The amount loaned for the year was consequently greater than the anticipated eventual size of the loan fund would justify. A large part of the total amount was loaned, however, on a temporary basis with the definite understanding that the borrower would repay within a year and seek a leave of absence at the end of the academic year should his own resources not justify the immediate continuance of his course. I think that despite the increased number of borrowers we have not added appreciably to our doubtful accounts, and feel strongly that in enabling several hundred students successfully to conclude their year's work instead of meeting with disaster in the middle of the term, the loan fund has had its value clearly demonstrated

	Roan Granted I Loan					Men		Men			
	Loans	201	_	ranted	_	ranted	1	Granted			
		Sor	I	Loan	2 Loans			Loans	Total		
School	No.		_	0) +4	7	01 +4		0 +4	Amount		
		No.	ibe	aga	ibe	ago	pe	aga	Lent		
	Total		Number	Average Amount	Number	Average Amount	Number	Average Amount			
	T_{ℓ}	Total	N	AA	R	44	2	77			
College	281		159	\$156.04	55	\$281.35	4	\$316.50	\$41,551.03		
Law	65	48	33	141.51	13	247.30	2	376.50			
Physicians and											
Surgeons	37	27	17	193.23	10	490.00			8,185.00		
Engineering	33	22	11	136.00	11	316.81			4,981.00		
Graduate	148	115	83	128.73	31	257.59	I	320,00	18,988.00		
Business	30	1	16	130.93	4	311.25	2	332.50	4,005.00		
Architecture	17	10	5	117.00	3	330.00	2	408.00	2,391.00		
Journalism	17	14	12	155.83	I	340.00	I	373.00	2,583.00		
Dentistry	43	33	23	245.21	10	436.01			10,000.19		
Library	14	13	12	147.08	I	270.00			2,035.00		
Extension	41	32	24	121.30	7	211.05	1	198.67	4,588.35		
University Under-											
graduates	6	4	2	200.00	2	230.00			860.00		
Optometry	2	2	2	106.50					213.00		
Seth Low	2	2	2	166.00					332.00		
Total	736	562	401	\$151.52	148	\$298.65	13	\$337.82	\$109,350.57		

During the year, 736 loans were made to 562 students, a total amount of \$109,350.57. The corresponding figures for 1928–1929 were 516 loans, 394 borrowers, \$78,050.34. The distribution of the loans according to schools is shown in the table on page 510.

It is apparent that we cannot continue this rate of lending, else when the fund reaches the size at present contemplated, it will fail to revolve. At the same time these are difficult months for students without ample means and the members of our committee feel strongly that we should make use of every available resource to relieve the economic pressure which tends to force many of our students to discontinue their studies. Extreme care is being exercised to provide aid for only the ablest students, and I believe that by placing those loans which exceed our logical yearly quota on a short-term basis, we shall avoid the danger of eventually running short of money through the failure of the total fund to revolve.

In preparing the tables of jobs filled, appearing at the end of this report, I have been impressed by the number of large and well-known organizations, commercial and otherwise, which have made use of our student-workers in carrying on their activities. A surprisingly large number of the jobs is quite different from the expected kinds of student work.

We find Ginn and Company recording our students' voices on phonograph records, to be used in teaching English pronunciation in the Philippines. Likewise several of our students from Europe and the Far East have had their voices recorded for talking pictures to be used in advertising Ford cars abroad.

One of our people was recommended to a group of executives of the American Telephone and Telegraph Company to deliver a series of lectures on modern literature. Another offered a somewhat similar series to the members of Rutgers Presbyterian Church. When the National Chain Store Association decided to prepare a comprehensive outline of the affirmative side of a debate on the desirability of chain stores, a competent man for the job was found on our lists.

An extensive traffic-counting job with R. H. Macy and Company gave employment to nearly one hundred of our men and women students. The New York Sun used a dozen students for the greater part of the summer vacation to take a census of Sun readers on the commuting trains. The New York Telephone Company used a group of underclassmen in their work of changing the number discs on all telephone instruments in New York. A student was employed in a survey of egg consumption conducted during the summer by the Department of Agriculture.

Through the J. Walter Thompson Company, Corona typewriters were presented to several of our men and women graduate students, all teachers, for the purpose of securing authentic testimonials after the machines had received several months' use.

An unusual call from the Rockefeller Institute resulted in a medical student being employed as week-end attendant to a group of monkeys, subjects of yellow fever experimentation.

Such jobs as those described above, while not typical of the main volume of student employment, do indicate the varied uses which national organizations make of our student-workers. We encounter in addition many unusual calls from individuals, ranging all the way from a request for a Japanese to explain a collection of Japanese prints to a person who had just inherited them, to a young woman to pack a trunk for a person making an abrupt departure for Europe.

A little son of the rich receives a chemical set for Christmas and one of our freshmen is engaged to teach him how to use it. Another youngster loses his mother, and the father, at a loss to care for the boy, makes a hurry call for a competent and sympathetic student. Another student undertakes, under the direction of a physician, the giving of special exercises to a small boy recovering from infantile paralysis. A blind man secures from Columbia a tutor in history and literature and shortly makes him his companion and financial secretary. One of the Varsity fencers is engaged by a dramatic club to prepare the principals for a duel scene.

The year just ended has produced many difficult problems, and the disappointment at losing many carefully cultivated sources of employment has been keen. That there has been an increase in our business is due to the cheerful and persistent effort of the members of the staff. They have not for a moment regarded the unfavorable conditions as a cause for discouragement but rather as an indication of the necessity for increased effectiveness. I thank them for their attitude and accomplishment.

Respectfully submitted,

NICHOLAS McDowell McKnight,

Secretary of Appointments

October 1, 1930

FULL-TIME PERMANENT PLACEMENTS MEN

Tota	Total
Accounting 8	Miscellaneous 2
Advertising 9	Motion Pictures 3
Banking 14	
Chain Store Work 2	Printing
Chemistry 6	Sales 2 2
Credit Investigation 3	Public Organization 5
Department Store Work 10	Public Utilities
Educational Administration . I	Accounting 11
Engineering	Engineering 9
Civil	Office
Electric 2 3	Publicity 2
Foreign Trade 3	Publishing
Institutional Administration . I	Editorial 4
Insurance 4	
Investment Banking and Bro-	Radio Broadcasting
kerage 7	
Law 70	
Manufacturing	Retail Trade 4 ⁷
Advertising 1	Secretarial Work 3
Office 9 ³	Statistics I
Production 2	University Administration I
Sales	
Sales Promotion 1 28	Total 246

¹ Filled in coöperation with the School of Business Committees on Employment.

² Two filled in coöperation with the School of Business Committees on Employment.

³ Five filled in coöperation with the School of Business Committees on Employment.

⁴ Eight filled in coöperation with the School of Business Committees on Employment.

⁶ Filled in coöperation with the Law Clerkship Committee of the Alumni Association of the Law School and the Clerkship Committee of the Third Year Class of the School of Law.

⁶ Ten filled in coöperation with the School of Business Committees on Employment.

⁷ Three filled in coöperation with the School of Business Committees on Employment.

FULL-TIME PERMANENT PLACEMENTS WOMEN

T	Cotal		T	otal
Accounting		Personnel		8
Art	I	Personnel Research		4
Chemistry	2	Private Club Work		I
Department Store Work	3 ¹	Private Secretarial Work .		1
Education	45 ¹	Psychology		6
Engineering	I	Psychological Research		I
Foreign Relations	I	Public Organization		7^{1}
Foreign Travel	1	Public Utilities		3
Hotel Management	2	Publicity		4 ¹
Insurance	5 ¹	Publishing		25 ³
Interior Decoration	I	Real Estate		I
International Relations	2	Recreational Work		I
Investment Banking and Bro-		Religious Education		I
kerage	172	Research		3
Journalism	4	Restaurant Management .		I
Law	9^1	Retail Trade		3 ¹
Library Work	7 ¹	Social Service		6
Manufacturing	16	Statistics		3
Marketing and Merchandising	I 1		_	
Medicine	9			
Motion Picture Production	5			
Musical Education	I			
Personal Service	I	Total	. 2	214

¹ One filled in coöperation with the School of Business Committees on Employment.

² Eleven filled in coöperation with the School of Business Committees on Employment.

³ Two filled in coöperation with the School of Business Committees on Employment.

COLLEGE AND UNIVERSITY TEACHING APPOINTMENTS

Department	Rank	Men	Women	Total
Biology	Professor	I		
3.0	Assistant Professor	I		2
Business Administration	Associate Professor	I		I
Chemistry	Department Head	1		
	Instructor	2		3
Economics	Assistant Professor	I		
	Instructor	7		8
English	Department Head	3		
	Dean		I	
	Associate Professor	I	I	
	Instructor	15	2	
	Assistant		I	24
German	Instructor	I	I	2
History	Instructor	4	I	5
Journalism	Instructor	I		I
Mathematics	Department Head		I	
	Instructor	3	I	5
Physics	Instructor	I		1
Psychology	Instructor	2	I	3
Public Speaking	Instructor	I		I
Romance Languages	Assistant Professor	2		
	Instructor	I	I	
French	Instructor	I		
French and Spanish .	Instructor		2	
Spanish	Instructor	1	I	9
Sociology	Instructor		1	I
Stenography	Instructor		I	I
Zoölogy	Instructor	I		I
	Total	52	16	68

FULL-TIME PLACEMENTS BY UNIVERSITY DEPARTMENTS

OCTOBER 1, 1929—SEPTEMBER 30, 1930

Accounting Civil Engineering Chemistry										٠			3
Total												Ī	12

MEN'S REGISTRATION FOR PART-TIME WORK ACCORDING TO SCHOOLS

	Winter	Summer	Total
College	622	636	1258
Law	93	93	186
Physicians and Surgeons	28	62	90
Engineering	34	39	73
Graduate	306	262	568
Business	80	75	155
Architecture	16	12	28
Journalism	24	13	37
Dentistry	15	33	48
Library Service	2		2
St. Stephen's		8	8
Extension	86	44	130
University Undergraduates	5	3	8
Seth Low	20	46	66
Optometry	4	5	9
Pharmacy	5	6	ΙI
Summer Session		66	66
Teachers College	90	68	158
Union Theological Seminary	5	14	19
	1435	1485	2920

PART-TIME AND SUMMER PLACEMENTS $\qquad \qquad \text{MEN}$

	School Year Oct. 1-May 31			June 1–Sept. 30 Summer		
Classification	Steady	Tempo- rary	Service	Steady	Tempo- rary	Service
Accessionist	I					
Accountant	2	I		I	I	
Advertising Assistant	1					
Assistant Head Waiter		I				
Athletic Coach	3			I		
Attendant to Invalid		3				
Baker Field Concession Manager	3					
Bank Runner	I					
Beach Attendant				I		
Blotter Concession Manager	1					
Bookkeeper	2					
Bookstore Agent	4					
Boys' Club Worker	29	I		I		
Camp						
Activities Director				I		
Assistant Director				I		
Councilor						
Dramatic				1		
General				6		
Head				2		
Music				2		
Nature Study				4		
Sailing				i		
Swimming				I		
Handy Man				I		
Manager of Supplies				1		
Secretary				ı		
Waiter				4		
Canvasser		8		7		
Carpenter	3	ı			I	
Cashier	4	1		I	3	
Chauffeur	7	5		3	10	
Chemist	l			3	I	
Christmas Fund Workers		159				
Circulation Manager	I	139				

PART-TIME AND SUMMER PLACEMENTS—MEN (CONTINUED)

	Se	chool Y	ea r		Summe	r
	Oct	. <i>I</i> - <i>Ma</i>	y 31	June	i-Sep	t. 30
Classification			9)		2)	
Classification	$d_{\mathcal{S}}$	n pe	vica	rd3	n p	vice
	Steady	Tembo- rary	Service	Steady	Tempo rary	Service
Clerk						
Bank	2					
Box Office	I					
Dormitory	1					
Financial	1					
Hospital	3					
Hotel	3					
Information	3			1	1	
Inventory				2		
Law				I	2	
Library	2	3				
Night				1		
Nurses' Registry				1		
Office	21	69	8	11	15	I
Post Office		150				
Railway Mail		15				
Registration		I				
Store	86	24		8	20	
Cloak Room Attendant	4	2				
Club Athletic Director				I		
Club Attendant	4				6	
Collector	2	I				
Companion	24	9		2	5	
Concession Assistant			221	6	11	
Cook	3			I		
Correspondent				14		
Debate					I	
Decorator		4				
Delivery Man				1		
Demonstrator	1				6	
Detective		12				
Distributor		3				
Dormitory Clerk	I					
Doorman	3					
Draftsman	8	12				
Editor		2				
Electrical Inspector	4					

PART-TIME AND SUMMER PLACEMENTS—MEN (CONTINUED)

	School Year Summ Oct. 1-May 31 June 1-S			Summe 1–Sep		
Classification	Steady	Tempo- rary	Service	Steady	Tempo- rary	Service
Electrical Repairman	25					
Elevator Operator	3			I		
Endorser				1	2	
Engineer		I		2	1	
Escort	20	2			1	
Executive Assistant	2	- 2				
Fencing Coach					I	
Floorwalker	3			I	1	
Food Checker	2			1		
Guide	2					
Houseman				I	2	
Indexer		I		_	_	
Interpreter		4				
Investigator	2	28		12		
Laboratory Assistant	3			I	9	
Language Critic					, j	
Lecturer	4					
Legal Research Worker		1		3		
Librarian	6	ı		3		
Life Guard				3		
Literary Worker				J		
Assistant		I			I	
Critic		3			I	
Writer	7			I	I	
Manager	2			ī	ī	
Manual Laborer		19	19		6	2
Messenger	5	13	49		14	9
Mimeograph Operator		.1	77			
Miscellaneous			1021			411
Model		5			6	-
Motor Bus Checker				I		
Musician	I	55		8	I	
Newspaper Delivery	I	00				
Night Clerk				2		
175th Anniversary Assistant		60				
Organizer		I				
Painter		7				

¹ Filled through the Cosmopolitan Club of International House.

PART-TIME AND SUMMER PLACEMENTS-MEN (CONTINUED)

	School Year Oct. 1–May 31			Summer June 1–Sept. 30		
Classification	Steady	Tembo- rary	Service	Steady	Tempo- rary	Service
Part-Time Teacher	6	2				
Photographer	I	2			1	
Physician's Assistant	I	4				
Process Server		I				
Proctor	1	61			44	
Proof Reader					1	
Psychological Test Subject		10			1	
Purser				I		
Questionnaire Worker				1		
Radio Recorder		2			6	
Radio Service Man	I					
Reader	3	21				
Refreshment Stand Attendant .				I		
Renting Agent		I		2		
Reporter	6	2				
Research Worker	3	5		2	4	
Resident Companion	4					
Resident Tutor	5			4		
Resident Tutor Companion	6			19		
Rope Man	1					
Salesman	17	32		33		
Sales Promotion Worker	3	2				
Seaman					1	
Section Manager	16					
Settlement Worker	10	I		2		
Soda Dispenser	I			2	1	
Solicitor	4	4				
Statistician	2	I		2	I	
Stenographer	9	13			4	
Sunday School Teacher	3	_				
Superintendent Floating Hospital				1		
Supervisor	3				5	
Surveyor					I	
Switchboard Operator	6	1		3		
Telephone Company Workers .				10		
Tennis Coach				I		
Ticket Seller	١	1				

PART-TIME AND SUMMER PLACEMENTS-MEN (CONTINUED)

	School Year Oct. 1-May 31 Service Service			Summer June 1-Sept. 3		
Classification				Steady	Tempo-	Service 5
Traffic Counter	 118 6 2 2 331 ²	92 36 70 I 15 65 8	605	2 37 I 1783	17 42 9 99 22	
Totals	898	1143	1009	424	389	53
Total School Year			3050	Sun	nmer	866
Total—Steady Positions Total—Temporary Positions Total—Service Positions Grand Total		1532 1062				

² 295 filled through University Dining Halls.

³ 162 filled through University Dining Halls.

PART-TIME AND SUMMER PLACEMENTS WOMEN

Cl. 16 vi	School Year Oct. I-May 31		Summer June 1-Sept.			
Classification	Steady	Tembo- rary	Service	Steady	Tembo- rary	Service
Accountant		2				
Agent	I					
Athletic Coach	I	1		I		
Attendant		1				
Bookkeeper	3					
Camp						
Councilor						
Arts and Crafts				I		
General				4		
Head				I		
Music				I		
Recreational Director				1		
Canvasser					I	
Cashier	4					
Census Taker		I				
Chaperone		I				
Checker		I				
Clerk	I					
Correspondence	I	42	4		3	
Library				1		
Office	18	46	4	3	30	2
Office (Resident)	I					
Retail Store	4					
Steamship					I	
Companion	9	9		2	8	
Cook	I	I				
Copyholder	1					
Dictaphone Operator	2					
Domestic Service	I	2				
Draftswoman	2	2				
Dramatic Critic				I		
Endorser					3	
Entertainer						
Phonograph Recorder	I	I				
Guide		l			I	

PART-TIME AND SUMMER PLACEMENTS—WOMEN (CONTINUED)

	School Year Oct. 1-May 31			Summer June 1–Sept. 30		
Classification	Steady	Tempo- rary	Service	Steady	Tempo- rary	Service
Hostess				2	1	
Houseworker				2	1	
Interpreter				ı		
Investigator		6			1	
Journalism				2		
Letterer		2		I		
Librarian	I			2		
Literary						
Assistant				1		
Critic		I		I		
Editor	2	4				
Editorial Assistant	I	6				
Publicity Writer	I					
Writer		I				
Manual Laborer	3					
Mimeographer		I			2	
Miscellaneous	43 ¹			30 ¹		
Model	4	2			3	
Mother's Helper	41	34	8	2	13	
Motion Picture Critic	5			3		
Musician						
Pianist	I	1				
Singer		I				
Office Assistant	I					
Part-Time Teacher	3					
Kindergartner	2					
Professional Packer						1
Proof Reader		3				
Psychological Test Subject		6			II	
Psychologist	I					
Psychology Assistant					I	
Reader	2	1				
Recreational Director	I			I		
Reporter	1					
Research Worker	4	10			II	
Resident Companion	ΙI			8	2	
Resident Secretary				3		

¹ Filled through the Cosmopolitan Club of International House.

PART-TIME AND SUMMER PLACEMENTS—WOMEN (CONTINUED)

	School Year Oct. 1-May 31			Summer June 1–Sept. 30		
Classification		Tempo- rary	Service	Steady	Tempo- rary	Service
Resident Tutor Companion	I			3		
Sales Promoter		2				
Saleswoman	43	18		ΙΙ		
Scorer	5	104			6	
Seamstress		I		• • •	I	
Secretary	7			I		
Statistician	4	2				
Stencil Cutter		I				
Stenographer	28	94	6	7	42	3
Reporter	I	6				
Switchboard Operator		I			I	
Teacher						
Dancing	6					
Therapist's Assistant	I					
Traffic Counter		58				
Transcriber		I				
Translator	3	14			2	
Tutor	73	12		22	9	
Tutor Companion	5			I		
Typist	19	239 ²	15	3	136	2
Foreign		I				
Usher	5			2		
Waitress		II	5	19	9	
Totals	380	754	42	144	299	8
Total School Year						451
Total—Steady Positions						
Grand Total						

² Two filled through the coöperation of the School of Business Committees on Employment.

ST. STEPHEN'S COLLEGE

REPORT OF THE WARDEN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930

To the President of the University

SIR:

I have the honor to submit a report of St. Stephen's College for the academic year 1929–1930, the seventieth since its founding and the second after its incorporation into the educational system of the University.

In my report last year there were enumerated certain factors which St. Stephen's College holds to be necessary for the development of the highest type of undergraduate work. These are: residence of scholars and undergraduates in a common environment considerably isolated, and acquaintance, intimate and informal, among them all; self-directing investigation on the part of the student; a recognition of the importance of manners and morals; a staff competent for individualized instruction; the absence of inhibitions both religious and secular; freedom from urban distraction; and the combination of small college living with the type of thought possible only in a great university. To an endeavor to combine all these factors the College continues committed. We hope that thereby we shall increasingly produce an intellectual environment and a fertile leadership profitable both to the scholars who live at Annandale and to those neophytes in things of the spirit whom we accept as students.

We continue ever to examine most critically our theory and practice. The entire staff meets always once a month, and sometimes oftener, for the discussion of education in general and of its own task in particular. As one recalls our discussions during the past year, it seems clear that we have come in our own minds to stress the following things:

I. We are sure that we must continuously endeavor to live and move and have our being as a college in terms only

of our really competent students; that we have no right to encourage anyone, for the sake of our increased income or for any other reason, to begin or to continue study with us unless he is of intelligence and force of character much higher than those of the usual American undergraduate. We must constantly beware of acquiescence in the assisting of mediocre people to make eventually a conventional pretense to an education which is not actually theirs. To this end we have been more than ever careful in the selection of our student body, and we have been rigorous in retiring from that student body those whom we feel are not unusually competent. We now examine the records of undergraduates at the end of their second year in residence, and refuse to promote anyone to the junior year unless we are convinced that as a sophomore he has shown definite intellectual ability and real enthusiasm for learning. We thus eliminate even some men who have managed to pass our courses, provided we are of the opinion that they are doing merely a conventional type of work, without real interest or probable promise. We do not expel these men. We merely request them honorably to retire. Seventeen per cent of the sophomore class last year was thus refused promotion. This procedure we feel has been most helpful to us both in getting rid of second-rate material in the upper classes and also in convincing all our students of our considerable expectation from them.

2. We are more than ever convinced of the great value of University companionships for the members of our staff. The fact that all of us are in close contact with the departmental organizations in the University, sharing in University research projects, being visited by our colleagues from the city, has destroyed that loneliness which always is the chief difficulty of teaching in a small college. At the same time, we value greatly the opportunity to live outside of the city, away from its distractions, in an academic atmosphere that is peaceful, where human values matter, and where living costs are not exorbitant. We esteem ourselves happy that we are citizens of the great intellectual world which is Columbia and at the same time domiciled and at work, on our scholarly

research and in our teaching, amid the beauty and charm of Annandale. We value probably most of all, about St. Stephen's, the opportunity for intimate and constant association with one another and with those who are beginning scholarly work under our direction.

- 3. We have continued to develop our individualized instruction. In only one department, that of Sociology, is the lecture method used. The Professor of Social Sciences does not wholly see with us eye to eye in the matter of method. We have restricted our conference groups, with the exception of that department, to twelve men as a maximum. average size of a conference class at the moment is six. Most of the upperclass work is done individually. We are constantly endeavoring to throw the whole responsibility for learning squarely on the student and to make ourselves-in his eyes and in our own-merely convenient and accessible helpers. A college should be trying not so much to instruct its students as, rather, to educate them. We are convinced that far more important to an undergraduate than the acquiring of a mass of facts selected and arranged by us is the development of his own ability to find out facts and to do independent thinking. If we keep this in mind we are fairly sure to recognize the importance of each student as a person, one who must not be standardized, one who must be helped to discover and use every ounce of individualized ability he possesses. To teach in such a manner lays a heavy burden upon the staff. Conferences with students take more time than classroom work. Frequently his teaching actually employs one of our teachers as much as from twenty to twentyfive hours a week. We feel that this, however, is not an undue burden, because we gain from our students real intellectual challenge and stimulation, which are helpful in the development of our own scholarship.
- 4. We have made no changes in curriculum, although there is constant pressure upon us to do so. We are convinced that the business of a college is to give intellectual discipline rather than to impart smatterings of information. No matter what we teach, the training of the student to investigate and to

think for himself is the chief object. In common with other colleges, we get from the secondary schools mostly men who have been too little trained and too much informed. This constitutes an obligation resting upon us. We must see that they get some of that discipline which they should have had before they reached us, and at the same time not hold them back in their legitimate interests. To build a curriculum with these two things in view is not easy. We do not think that we have done it perfectly. There is, however, we believe, sound pedagogy behind our rigid insistence upon adequate language drill, thorough training in mathematics, and adequate instruction of students through laboratory courses for a participation in scientific discipline. St. Stephen's College could undoubtedly triple the number of entrance applications if it would conform to the American tendency to minimize the importance of these training subjects. It is probably true that our college at the present moment has the most exacting curriculum, from the training point of view, in all the United States, and because of it, less freedom for the student to follow, before receiving the Bachelor's degree, the line of his own intellectual inclination. This is a matter of what we deem necessity. We have no wish merely to be peculiar; but we are sure that at least in this oddity we are right. A man with a trained mind, we believe, can do whatever he wishes to do, with considerable competence, on his own and without any instruction whatever. It is much better to train him than to inform him. Perhaps an educated man may be best defined as a man who is competent to carry on his own adult education. At any rate, it is to that theory of education that St. Stephen's College is committed, and according to that theory it arranges its curriculum.

5. We continue to find that it is quite possible to live together on a religious basis, with constant and uncontroversial recognition of the presence of God, and with a reverent, honest, and religious attitude toward the mysteries of life and death and the meaning of things; and yet with neither any restriction of scientific and scholarly freedom nor any pettiness of ecclesiastical division. On the staff we range in

affiliation all the way from Quakers to Roman Catholics, and in the student body is every sort of religious background; yet we worship together, live together, study together, and carry on our research together with no feeling that anyone is seeking to coerce or convert the other and with a constant and happy recognition that we all are working under the guidance and leadership of God Himself.

To the pursuit of the objectives which I have, in the name of my colleagues, most inadequately outlined, we hold without compromise. We believe that thereby we are helping to promote within the University and within the educational system of the country a better sort of college, one that is increasingly sane and rigorous and virile and honest. That we have not perfectly succeeded in this attempt no one knows better than we; but that the College grows more satisfactory in achievement with every year we are convinced. To continual improvement we pledge ourselves.

The work at Annandale constitutes a Columbia experimental venture in higher education comparable to the attempt being made at Harvard and Yale, by "house plans," to restore intimacy and rational living to urban university life. At Yale and Harvard they are seeking to divide unwieldy student bodies. The St. Stephen's-Columbia endeavor is to integrate properly sized units already in existence. The same end is in view, but the approach is from the opposite direction. The Harvard and Yale plans have cost vast millions of dollars and will cost millions more. They have been wisely and generously financed. The St. Stephen's-Columbia plan, by utilizing what already exists, is a great deal cheaper; but so far it has not been adequately financed.

It seems incredible that an institution which meets the requirements of every academic rating body in America, which has just been honored with Phi Beta Kappa, which is constantly and interestedly talked about in educational circles. should be, at the very moment when it achieves this unusual position, probably the worst supported, the most inadequately endowed, of all American colleges. This is, however, the actual situation.

There is approximately a million and a half dollars worth of buildings and equipment at Annandale. The interest from income and assured grants is approximately \$25,000 a year, a sum so inadequate as to be grotesque. The annual operating deficit is \$100,000. In other words, the College is proceeding as though it had a million and a half dollars of endowment which it does not possess. Greater economy is impossible. The work of the College must be done well, on a real university basis, or its value—actual or potential—to the University and to higher education is nil. It is plain that St. Stephen's College must have, at once, either a million and a half more endowment or else annual grants and subscriptions to the extent of \$75,000 a year. Unless this money is procured I cannot see how the College can possibly continue to do that work which is at present its pride, that work by which it makes to the University a competent contribution.

Respectfully submitted,

BERNARD IDDINGS BELL,

Warden

June 30, 1930

REPORT OF THE REGISTRAR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1930 AND FOR THE SUMMER SESSION OF 1930

To the President of the University

SIR:

As Registrar of the University, I have the honor to submit the following report for the year ending June 30, 1930, and for the Summer Session of 1930.

During the year beginning July 1, 1929, there were enrolled at Columbia University 38,230 resident students as compared with 36,587 in the year preceding, and 27,352 in 1920–1921. The enrollment in each of the main divisions is shown as follows:

	Men	Women	Total
Undergraduate, Graduate, and Pro-			
fessional Schools	8,225	8,914	17,139
University Classes	5,636	4,694	10,330
Summer Session, 1929	4,219	9,598	13,817
Total	18,080	23,206	41,286

There were within these divisions 3,056 duplications of which 2,886 represent students of the Summer Session who returned to the University in the Winter or Spring Session.

With 13,817 in the Summer Session, 22,520 in the Winter Session, and 20,935 in the Spring Session the aggregate session-registrations numbered 57,272.

13,370 not included above received instruction as non-resident students in University Extension as follows: 9,928 in Home Study courses, 575 in special courses, and 2,867 in extramural courses.

In the division consisting of undergraduate, graduate, and professional schools women were in the majority with 8,914. 7,402 or 42.9 per cent were residents of Greater New York; and 588 or 3.4 per cent were from foreign countries.

Every state of the Union was represented. Exclusive of 78 from the District of Columbia, 100 or more came from each of 18 states; 25 or more, from each of 40 states; and 10 or more, from each of 44 states. Canada sent us the largest foreign group with 133; China was second with 117; Japan, third with 34; Great Britain, fourth with 30; and Germany, fifth with 29.

During the academic year, 5,069 individuals received 5,773 University degrees and diplomas in course, 4,891 completing courses leading to a degree as against 2,097 ten years ago.

Within the Corporation, exclusive of the Schools of Medicine and Dental and Oral Surgery, 3,656 courses were conducted with aggregate attendance of 115,936 as compared with 114,981 in the year preceding. The following shows the number of courses and the aggregate attendance by divisions:

Division	Number of Courses	Aggregate Attendance
Graduate, Undergraduate, and Pro-		
fessional Schools	1,565	49,767
University Classes	1,062	32,446
Summer Session, 1929*	1,029	33,723
Total	3,656	115,936

University Extension gave instruction to 28,144 students, resident and non-resident. These are classified as follows:

Resident Students,	Jniv	er	sit	y (Cla	ass	es					
Matriculated												4,444
Non-matriculated												10,330
Non-resident Studen												
Home Study Stud	lents	; .										9,928
Extramural												2,867
Special												575
Total												28,144

The heavy burden of routine has been carried by the staff with cheerfulness and loyalty. Their spirit of helpfulness

^{*}Includes courses offered at Teachers College.

has gone far to make of this office a place for real service to the University community. There are listed below the names of members of the regular staff who have been in service during the fiscal year:

Baines, Nancy D. Bilyeu, Mary Brick, Violet Brooker, Evelyn (resigned) Caldwell, Margaret Carrigan, Margaret (Seth Low Junior College) Carroll, Beatrice E. (resigned) Crane, Arthur S. (resigned) Dignus, Madeline E. Duck, Helen L. (Home Study) Finan, Gertrude H. Ford, Dr. Charles M. (School of Dental and Oral Surgery) Gaffney, Frank Grof, Jessie Hill, Helen (resigned) Howe, Grace Jacobus, Elizabeth Van H. Keefer, Dorothy Kempton, Iva

Lambrecht, Roberta (resigned) Lindsay, Gladys M. Marsh, Mary (Engrosser) Martens, Viola I. Mooney, Hester E. (Seth Low Junior College) (resigned) Most, Dorothy C. (resigned) Orr, Frederick Patton, Rose Reardon, Clarence R. (Evening Clerk) Rossbach, Catherine Sargent, Lucille B. Scully, Madeline Scully, Margaret Sogaard, Grace Van Veen, Florence Wendt, Ruth B. (resigned) Wetzel, Lucile Wylie, Martha M. Young, Beatrice M.

The usual statistical material is presented in the following tables showing enrollment, class attendance, degrees conferred, geographical distribution, etc.

TABLE I

REGISTRATION AT COLUMBIA UNIVERSITY IN ALL FACULTIES, DURING THE ACADEMIC YEAR 1929-1930

Resident Students

Faculties	First Year	Second Year	Third Year	Fourth Year	Non-Candidates	Graduate	Total	New Students	Percentage of New Students
Undergraduate Students: Columbia College ¹ Barnard College University Undergraduates. St. Stephen's College Seth Low Junior College ⁵ . Total Undergraduates.	203	247 39 157	315 237 22 23 597	392 227 21	82		1,948 1,104 171 132 383 3,738	394 109 50 178	31.5 35.7 63.7 37.9 46.5 36.0
Graduate and Professional Students: Graduate Faculties² Law. Medicine Engineering Architecture Journalism Business. School of Dental and Oral	212 115 49 71 111	102 50 	102 50		9 10 23 2 7	5 45 4 26	3,247 600 438 217 110 181 485	1,432 226 115 106 46 129 304	44.1 37.7 26.3 48.8 41.8 71.3 62.7
Surgery: Oral Hygiene Dentistry. Library Service. Optometry. Teachers College ³ :	54 179	53	59	33	14	52	78 213 250 22	78 57 184 17	100.0 26.8 73.6 77.3
Education. Practical Arts Pharmacy. Unclassified ² . Total Graduate and Profession-	210	260	255	1,025	63		809 288	829 213 234	34.0 38.2 26.3 81.3
al Students Deduct Duplicates ⁴ Total		.			689	7,531	13,626 225 17,139	5,506	40.4
University Classes At the University Total Deduct Duplicates							10,330 27,469 170	6,046	58.5
Net Total Winter and Spring Sessions							27,299 13,817 41,116	6,072	43.9
Deduct Duplicates (See Table IV)Grand Net Total, Winter, Spring, and Summer	• • • • •			• • • • •			2,886		
Sessions							9,928		
credit) Students in Special courses (given Total II and III	ven wi	thout	caden	ic cre	dit)		2,867 575 13,370		

¹ The registration by years in Columbia College is according to technical classification, based on the amount of credit earned.

² The total 3,247 does not include r college graduate in medicine who is also a candidate for the degree of A.M. It likewise does not include 882 candidates for a higher degree enrolled in the Summer Session only.

³ Does not include 3,486 candidates for a higher degree enrolled in the Summer Session

only.

4 107 College seniors exercising a professional option are included in both the Columbia.

5 the respective professional schools, distributed as follows: 4 107 College semors exercising a professional option are included in both the Columbia College total and those of the respective professional schools, distributed as follows: Architecture 11, Business 15, Dentistry 4, Law 43, Engineering 19, Medicine 13, Journalism 2. 3 University Undergraduates are included in University Undergraduate total and those of the respective professional schools distributed as follows: Business 1, Dentistry 1, Law 1. The 225 duplicates also include 115 who transferred at the mid-year from one school of the University to another.

There are also 6 College seniors not shown above who are exercising professional option in medical schools elsewhere, distributed as follows: Bellevue 1, Boston Medical 2, Long Island College Hospital 2, Michigan Medical 1.

FEXCUSIVE of 44 University Undergraduates taking courses at Seth Low Junior College.

⁵ Exclusive of 44 University Undergraduates taking courses at Seth Low Junior College.

TABLE II

REGISTRATION BY SESSIONS, 1929-1930

RESIDENT STUDENTS

Faculties	1929 Summer Session	Winter Session	Spring Session	Gross Totals
Undergraduate Students:				
Columbia College ¹	222	1,718	1,712	3,652
Barnard College	105	1,049	1,020	2,174
Seth Low Junior College	72	315	325	712
St. Stephen's College		123	117	240
University Undergraduates1	31	118	150	299
Graduate and Professional Students:				
Graduate Faculties	1,268	2,695	2,603	6,566
Law	95	595	543	1,233
Medicine	I	434	426	861
Engineering	26	208	204	438
Architecture	20	100	99	219
Journalism	18	172	154	344
Business	67	411	396	874
Dental and Oral Surgery:		1		
Dentistry	I	206	205	412
Oral Hygiene		77	68	145
Library Service	203	224	219	646
Optometry	I	22	22	45
Teachers College { Education	5,784	= 406		16,703
Teachers College { Practical Arts	5,704	5,406	5,513	
Pharmacy	I	809	809	1,619
Unclassified University Students	5,902	226	207	6,335
University Classes		7,612	6,143	13.755
Gross Totals	13,817	22,520	20,935	57,272
Duplicate Registrations				19,042
Net Total for the Year				38,230

¹ Exclusive of seniors exercising the professional option, included in the totals of the several schools.

TABLE III

PROPORTION OF MEN AND WOMEN FOR THE PAST TEN YEARS, EXCLUSIVE OF THE SUMMER SESSION AND UNIVERSITY EXTENSION

I'ear	Men	Per Cent	Women	Per Cent	Total
1020-1021	5,316	54-57	4,425	45.43	9,74
1021-1022	5,906	53.93	5,045	46.07	10,951
1022-1023	6,006	51.87	5,572	48.13	11,578
1923-1924	6,797	52.53	6,143	47.47	12,940
1924-1925	7,049	52.64	6,343	47.36	13,392
1925-1926	6,976	52.07	6,422	47.93	13,398
1926-1927	7,130	49.28	7,338	50.72	14,468
1927-1928	7,440	49.07	7,722	50.93	15,162
1928-1929	7,788	48.92	8,131	51.08	15,919
1020-1030	8,225	47.99	8,914	52.01	17,139

TABLE IIIA

PROPORTION OF MEN AND WOMEN IN UNIVERSITY EXTENSION 1929-1930, EXCLUSIVE OF STUDENTS IN SPECIAL COURSES

	Men	Per Cent	Women	Per Cent	Total
Resident Extramural Home Study	5,636 244 5,707	54.56 8.51 57.48	4,694 2,623 4,221	45.44 91.49 42.52	10,330 2,867 9,928
Total	11,587	50.11	11,538	49.89	23,125

Note: Matriculated students taking courses in University Extension are not included in above.

TABLE IV

DUPLICATE REGISTRATIONS BETWEEN THE SUMMER SESSION OF 1929 AND THE ACADEMIC YEAR 1929-1930 FOR RESIDENT STUDENTS

A. Students of the Summer Session Who Returned in the Winter or Spring Session of 1929–1930

School or Faculty to Which They Returned	Men	Women	Total
Architecture	15	I	16
Barnard		95	95
Business	58	8	66
Columbia College	188		188
Dental and Oral Surgery	10		10
Engineering	65		65
Graduate Faculties (Political Science, Philos-	-0		- 0
ophy, and Pure Science)	248	27 I	510
Journalism	5	l ii	16
law	72	3	7.5
Library Service	3	37	40
Medicine	6	2	8
Optometry	T		Т.
Pharmacy	T	ĭ	2
St. Stephen's College	T		Т
Seth Low Junior College	42		42
Teachers College:	4-		4-
Education	248	759	1,007
Practical Arts.	61	351	412
University Classes	T 28	159	287
University Undergraduates	30	139	36
Oniversity Ondergraduates	30		30
Total	1.182	1,704	2,886

B. Matriculated Graduate Students of the Summer Session of 1929, Who Did or Who Did Not Return in the Winter or Spring Session of 1929-1930

Faculties	Returned	Did Not Return	Total
Political Science, Philosophy, and Pure Science Education and Practical Arts	386 641	882 3,486	1,268 4,127
Total	1,027	4,368	5,395

TABLE V

CLASSIFICATION OF STUDENTS IN THE SCHOOL OF ENGINEERING

Departments	First Year	Second Year	Third Year	Non- Candi- date	Gradu- ate	Total
Chemical Engineering Civil Engineering Electrical Engineering Industrial Engineering Mechanical Engineering Metallurgy Mining Engineering	8	9 9 16 9 2 5	13 11 10 7 4 5	4 2 11 3 	5 13 27	39 30 59 16 51 10
Total	49	50	50	23	45	217

Total includes 19 College seniors exercising a professional option in Engineering as follows: 6, Chem.E.; 2, C.E.; 5, E.E.; 1, E.M.; 1, Ind.E.; 4, Mech.E.

TABLE VI

CLASSIFICATION OF CANDIDATES FOR THE DEGREES OF MASTER OF ARTS,
MASTER OF LAWS, MASTER OF SCIENCE, DOCTOR OF PHILOSOPHY,
AND DOCTOR OF LAW

A. By Primary Registration

	1929-1930	1928-1929
Political Science, Philosophy, and Pure Science	3,243	2,961
Architecture (M.S.)	4	2
Business (M.S.)	139	134
Business (Ph.D.)	39	25
Education and Practical Arts	3,962	3,341
Engineering (M.S.)	45	47
Journalism (M.S.)	26	18
aw (A.M.)		6
Law (LL.M.)	.5	6
aw (Jur.D.).	5	6
Library Service (M.S.)	52	26
Medicine (A.M.)	ī	
Medicine (Public Health) (M.S.)	5	1
Union Theological Seminary (A.M.)	4	12
Summer Session (A.M. or Ph.D. only)	4,368	4,179
Total	11,898	10,764

¹ Includes 101 officers of the University in 1929-1930 and 109 in 1928-1929.

B. By Faculties, Including the Summer Session

	1929-1930	1928-1929
Political Science, Philosophy, and Pure Science	4,125	3,795
Political Science, Philosophy, and Pure Science (Students of		
Professional Schools)	1	6
Architecture (M.S.)	4	2
Business (M.S.)	139	134
Business (Ph.D.)	39	25
Education and Practical Arts	7,448	6,686
Engineering (M.S.)	45	47
ournalism (M.S.)	26	18
aw (LL.M.)	5	6
aw (Jur.D.)	5	6
ibrary Service (M.S.)	52	26
Medicine (Public Health) (M.S.)	5	I
Jnion Theological Seminary (A.M.)	4	12
Total	11.808	10,764

 $[\]it Note:$ Candidates for graduate professional degrees registered only in the Summer Session are not included.

C. By Faculties, Omitting Summer Session and Students Registered Primarily for a Degree in the Faculties of Architecture, Business, Journalism, Law, Library Service, Medicine, Engineering, and Union Theological Seminary

	1929-1930	1928-1929
Political Science, Philosophy, and Pure Science Education and Practical Arts	3,243 3,962	2,961 3,341
Total	7,205	6,302

TABLE VII

SUBJECTS OF MAJOR INTEREST OF STUDENTS REGISTERED FOR THE HIGHER DEGREES (EXCLUSIVE OF THE SUMMER SESSION)

Subjects	Political Science, Philosophy, and Pure Science	Architecture	Business	Engineering	Journalism	Law	Library Service	Medicine	Education and Practical Arts	Total
Anatomy	5									5
Anthropology	17									17
Architecture	I	4								5
Astronomy	I									I
Bacteriology	10									10
Biological Chemistry Biology	17 16									17 16
Botany	37			1						37
Business	7		178							185
Chemical Engineering	19									19
Chemistry	256									256
Chinese	7									7
Civil Engineering Economics	2									700
Education and Practical	199									199
Arts		l							3,962	3,962
Arts Electrical Engineering	6			5						II
English and Compara-										
tive Literature:										
Comparative Litera-										
ture English	20 549									20 549
Fine Arts	15									15
Geography	12									12
Geology	55									55
German	63									63
Greek and Latin:				l						
Archaeology Greek	_5									5
Latin	15 133									133
History	421									421
Indo-Iranian	3									3
Industrial Engineering				13						13
Journalism	2				26					28
Law (Private) Library Service							 52			10 52
Mathematics	130									130
Mechanical Engineering	130									29
Mineralogy	ī									ī
Music	13									13
Pathology	2									2
Philosophy	99									99 140
Physics	140 16									140
Physiology Political Science	23									23
Psychology	275									275
Public Health								5		5
Public Law, Compara-										
tive Jurisprudence, and Government:										
Government:	18									18
Public Law	118									118
Religion	13									13
Romance Languages:	0									
French	203									203
Italian	18									18
Spanish	103									103
	·			<u>'</u>						

TABLE VII—(Continued)

Subjects	Political Science, Philosophy, and Pure Science	Architecture	Business	Engineering	Journalism	Law	Library Service	Medicine	Education and Practical Arts	Total
Science of Languages Semitic Languages:	2									2
Arabic	I									I
Semitic	15									15
Slavonic Languages: Russian	2									2
Slavonic	2									2
Social Science:	_									
Social Legislation	8									8
Social Science	18									18
Sociology	86									86
Zoölogy	47									47
Total	3.2481	4	178	45	26	10	52	5	3,962	7,530

SUMMARY BY DIVISIONS

Divisions	Political Science, Philosophy, and Pure Science	Architecture	Business	Engineering	Journalism	Law	Library Service	Medicine	Education and Practical Arts	Total
Ancient and Oriental Languages. Architecture Biology. Business Chemistry Education and Practical	180 1 150 7 256	4	178							180 5 150 185 256
Arts. Engineering. Fine Arts. Geology and Mineralogy History, Economics, Public Law, and So-	29 20 56			45					3,962	3,962 74 20 56
cial Science	891				26	10	52			891 28 10 52
ical Science	283 956							5		283 5 956
Music Philosophy, Psychology, and Anthropolgy Total	404 3,2481	4	178	45	26		52	5	3,962	404 7,530

¹ Includes 1 primarily registered in the School of Medicine.

TABLE VIII

THE PERCENTAGE OF STUDENTS FROM THE SEVERAL GEOGRAPHICAL DIVISIONS DURING THE PAST TEN YEARS (EXCLUSIVE OF UNIVERSITY EXTENSION AND SUMMER SESSION)

	1920- 1921	1921- 1922	1922 1923	1923- 1924	1924- 1925	1925- 1926	1926-	1927– 1928	1928-	1929- 1930
North Atlantic Division	73.18	74.93	75.17	76.08	75.45	76.82	75.40	76.19	76.94	77.12
South Atlantic Division	4.63	3.65	4.07	4.13	3.88	3.88	4.06	3.94	4.03	4.22
South Central Division	3.95	3.23	3.18	3.16	3.24	3.29	3.37	2.97	3.41	3.13
North Central Division	9.47	9.63	9.70	9.22	9.27	8.76	9.38	9.24	8.90	9.00
Western Division	3.36	3.04	2.99	2.65	2.84	2.67	3.13	3.03	2.73	2.74
Insular Territories	99.0	0.47	0.50	0.42	0.35	0.35	0.39	0.33	0.30	0.31
Foreign Countries	4.75	5.05	4.38	4.34	4.97	4.23	4.27	4.30	3.57	3.41
New York City.	41.76	40.40	41.06	40.79	37.74	40.25	40.24	38.46	42.30	42.97
Out of Town	58.24	29.60	58.94	59.21	62.26	59.75	20.16	61.54	57.70	57.03

RESIDENCE OF STUDENTS (EXCLUDING SUMMER SESSION AND STUDENTS IN SPECIAL COURSES IN TABLE VIIIA

	sion	1010I	9,879 2,671 6,160 18,710	962	133	460	28	2,706	13,156	I,1	84	31	2,261 10,784	1,267	315
	University Extension	Kpn18 əmoH	091'9	359	117	397	53	616	3,332	885	73	25	2,261	965	26
	ersily	Extramural	2,671	492	П	П	:	1,265	740	172	:	:	108	196	92
	Unia	Resident	0,879	111	15	62	Ŋ	522	9,084	63	11	9	8,415	100	101
		T010T	116 13,307	447	66	368	55	1,745	9,813	149	44	65	7,402	729	20
	э	St. Stephen's Colles	116	00	П	II	2	13	65	0	9	H	6	2	H :
		Seth Low Junior	382	:	:	:	:	12	369	н	:	:	332	I	: :
	S1:	Unclassified Studen	182	3	:	4	:	29	139	Ŋ	н	1	116	20	: H
		Растасу	795	10	:	9	:	77	693	∞	:	П	559	5	: :
		Education and Practical Arts	994 4,403 795 182 382	241	70	208	32	801	2,591	400	19	41	1,583 559 116 332	383	31
$\widehat{\mathbf{z}}$		Barnard College	600	30	I	17	63	127	780	33	2	73	561	26	10 W
SIO		O plometry	2.5	н	:	н	:	8	18	:	:	:	15	:	:::
LEN		Library Service	801	3	73	7	3	11	64	13	3	77	38	24	. 10
EX		University Undergraduates	159	3	П	7	:	-1	142	4	:	:	135	7	
UNIVERSITY EXTENSION)		Graduale Faculties	77 113 317 207 78 2,538	50	15	55	1-	219	2,091	16	7	00	168 176 43 1.807	141	18
VE		Oral Hygiene	18	17	:	7	:	61	54	3	:	:	43	:	: :
<u> </u>		Dentistry	202	H	:	П	:	14	189	2	:	:	176	4	. H
		Business	718	91	н	9	:	37	231	22	3	н	891	34	: 10
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		Architecture	122	3	:	:	:	9	29	:	:	н	51	I	H :
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		1929-1930	UNITED STATES North Atlantic Division	Connecticut	Maine	Massachusetts	New Hampshire	New Jersey	New York	Pennsylvania	Rhode Island	Vermont	New York City(42.93 per cent)	South Atlantic Division	Delaware

126 92 143 111 27 153 181	590 822 82 64 51	77 77 195 1,676	285 110 73 41 290	162 32 9 494 4 4 48
112 68 132 100 22 126 176	528 72 72 21 26 44 44	69 66 174 1,560	271 103 59 41 274	
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3 g	South Central Division(3.13° per cent) Alabama. Arkansas. Kentucky	ivision	(9.06° per cent) Illinois. Indiana. Iowa. Kansas.	
Florida	uth Central Div (3.13³ per cent) Alabama Arkansas Kentucky Louisiana	Mississippi Oklahoma Tennessee Texas	(9.06³ per cent) Illinois Indiana Iowa Kansas	Minnesota Missouri Nebraska North Dakota Ohio
Florida Georgia Maryland North Carolit South Carolit Virginia	uth Central (3.13° per ce. Alabama Arkansas Kentucky Louisiana	klahor ennese exas	(9.06³ per cen Illinois Indiana Iowa Kansas	Minnesota Missouri Nebraska. North Dak Ohio South Dak
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TABLE VIIIA—(Continued)

ion	1010T	609	18	297	30	15	17	4	9	80	10	121	II	35	4	3	3	10	10	61	22,884
University Extension	крт5 эшоН	577	17	283	23	15	15	4	9	78	9	119	11	20	4	3	2	5	5	н	018,0
versity	Extramural		:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	2,867
Uni	Resident	32	н	14	10	:	2	:	:	6	4	61	:	IZ	:		I	S	S	I	10,207
	Tolal	472	7	180	67	91	21	0	0	54	30	80	9	53	:	3	10	17	23	:	245 22 1,095 6,407 805 253 383 132 16,666 10,207 2,867 9,810 22,884
25	St. Stephen's Colleg	C)	:	7	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	132
	Seth Low Junior College	:	:	:	:	:	:	;	:	:	:	:	:	:	:	:	:	- 1	:	:	383
sir	Unclassified Studen	~	:	Η	н	:	н	:	:	2	:	7	:	0	:	Η	:	Н	:	:	253
	Брактася	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	805
	Education and Practical Arts	274	4	OII	37	II	14	Н	4	27	9 I	47	3	29	:	:	Ŋ	13	II	:	6,407
	Barnard College	12	:	4	9	:	:	:	:	:	H	I	:	:	:	:	:	:	:	:	1,095
	Optometry	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	;	:	:	:	22
	Library Service	20	:	7	61	:	:	:	:	5	:	Ŋ	П	:	:	:	:	:	:		
	University Undergraduates	I	:	:	:	:	:	:	:	:	:	ī	:	I	:	:	:	:	I	:	166
	Graduale Faculties	06	1	32	6	61	4	I	3	13	9	17	6	,0	:	I	I	I	61	:	3,108
	Oral Hygiene	:	:	:	:	:	:	:	_:	:	:	:	:	:	:	:	:	:	:	:	1 %
	Dentistry	7	:		:	:	:	:	:	:	:	:	:		:	:	:		_:	<u>:</u>	213
	Business	22	:	-1	3	C)	:	:	:	3	2	S	:	2	:	:	3	2	:	:	437
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	Architecture	∞	:	9	7	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	103
	Engineering	5	:	7	I	:	:	:	Ι	:	:	I	:	6	:	I	:	:	I	÷	199
	Medicine	7		3	Η	Η	:	:	:	:	8	:	:	9	:	:	:	:	9	:	432
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	1929-1930	Western Division	Arizona	California	Colorado	Idaho	Montana	Nevada	New Mexico	Oregon	Utah	Washington	Wyoming	Insular and Non-contiguous Territories	Alaska	Canal Zone	Hawaiian Islands	Philippine Islands	Porto Rico	Virgin Islands	Total

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St. Stephen's College				-	:	:		:	:	-	:	:		:	:	<u> </u>		132	<u> </u>	1:	
Seth Low Junior College	:		: :	:	:	: :		:	:	:	:	:		:	:	:	1	383	T	[:	
Unclassified Students	: :	:	: :		: '	1		H	:	:	: '	- F	1	Н	:	:	35	288	1	1:	
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Barnard College					:		:	I	:	:	:			:	:	:	0	1,104	:	1	
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Dentistry		:	: :	:	:		:	:	:	:	:			:	:	:	:	213	1 :	<u>:</u>	dod
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Engineering	: :	:	: :	Н	: -	1 :	Н	2	:	н	: -	1 :	Н	:	:	:	18	217	:	<u> </u>	nal
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1929-1930	New Zealand	Norway	Panama	Persia	Poland	Portugal	Rumania	Russia	South Africa	Spain.	Sweden	Switzerland	Syria	Turkey	Venezuela	Vugoslavia	Total (Foreign Countries) (3.418 per cent)	Grand Total	Ouplicates2	Grand Total (Net)	1 Exclusive of seniors exercising a professional option, included elsewhere in this table

Transfers at midyear.
 Exclusive of University Extension.
 Exclusive of University Undergraduates exercising professional option, included elsewhere in this table.

TABLE IX DEGREES AND DIPLOMAS GRANTED, 1929-1930

	Men	Women	Total
A. Degrees conferred in course: Bachelor of Architecture. Bachelor of Arts (Columbia College). Bachelor of Arts (Barnard College). Bachelor of Arts (Barnard College). Bachelor of Arts (St. Stephen's College). Bachelor of Laws. Bachelor of Laws. Bachelor of Science (Business). Bachelor of Science (Dentistry). Bachelor of Science (Library Service). Bachelor of Science (Coptometry). Bachelor of Science (Pharmacy). Bachelor of Science (Pharmacy). Bachelor of Science (Engineering). Bachelor of Science (University Course). Chemical Engineer. Civil Engineer. Electrical Engineer. Engineer of Mines.	14 346 	240	15 346 240 19
Bachelor of Laws. Bachelor of Literature. Bachelor of Science (Business). Bachelor of Science (Dentistry). Bachelor of Science (Library Service).	178 33 59 10	1 30 17 	179 63 76 10
Bachelor of Science (Optometry) Bachelor of Science (Pharmacy) Bachelor of Science (Practical Arts and Education) Bachelor of Science (Engineering)	4 17 43 45	524	567 45
Bachelor of Science (University Course) Chemical Engineer Civil Engineer Electrical Engineer Engineer of Mines	22 12 8 8 5	2	24 12 8 8 5
mechanical Engineer	-0	i	5 29 1 105
Doctor of Dental Surgery Doctor of Law Doctor of Medicine Doctor of Pharmacy Doctor of Philosophy Master of Arts (Political Science, Philosophy, and Pure Science) Master of Arts (Education and Practical Arts) Master of Arts (Union Theological Seminary)	315 561	369 1,390	184 684 1,951
		I I	2 2 37 2
Master of Laws. Master of Science (Engineering). Master of Science (Architecture). Master of Science (Business). Master of Science (Jurnalism). Master of Science (Library Service). Master of Science (Practical Arts). Pharmaceutical Chemist. Total Deduct Duplicates. Total individuals receiving degrees in course.	32 5 3 2 37 2,094 15 2,079	4 8 17 23 1 2,820 8 2,812	36 13 20 25 38 4,914 23 4,891
B. Honorary Degrees: Doctor of Laws. Doctor of Letters. Doctor of Sacred Theology. Doctor of Science. Total.	35 51 5 43 134	1 4 5	36 55 5 43 139
C. Certificates and Teachers College Diplomas Granted: Preliminary Certificate in Accounting (University Extension)	1 4		1 4
Certificate in Fire Insurance (University Extension). Certificate of Proficiency in Journalism	14 1	 I 2	14 2 2
Certificate in Oral Hygiene Certificate in Secretarial Studies (University Ex- tension) Certificate in Secretarial Studies (School of Busi-		72 32	72 32
ness). Bachelor's Diploma in Education. Doctor's Diploma in Education Master's Diploma in Education Total.	10 174 204	16 127 2 403 655	16 137 2 577 859
Total degrees and diplomas granted	2,432 183 2,249	3,480 521 2,959	5,912 704 5,208

1 Distributed as follows: A.B. and B.S. (Engineering), I man; A.B. and A.M., I man: B.S. (Engineering) and Engineering degrees, 7 men; LL.B. and A.M., I man; B.S. (Teachers College), A.M., 3 men and 8 women; B.S. (University), and A.M., I man; B.S. (Pharmacy) and Ph.Ch., I man.

2 In addition to those noted in Note I (23, 15 men and 8 women) the following duplications occur: (681, 168 men and 513 women) B.S. and Teachers College diplomas, 10 men and 122 women; A.M. and Teachers College diplomas, 10 men and 122 women; College diplomas, 2 women.

TABLE X

MAJOR INTEREST OF RECIPIENTS OF HIGHER DEGREES 1929-1930, EXCLUSIVE OF THE A.M. IN EDUCATION, PRACTICAL ARTS, AND UNION THEOLOGICAL SEMINARY

	A	.M.	Jı	ır.D.	L	L.M.	Λ	1.S.	P	h.D.	T	otal
Subjects of Major Interest	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
AnatomyAnthropology	I	I								· · · · · ·	I	2
Architecture		î					2				2	I
Bacteriology	3	4								I	3	5
Biological Chemistry.		ī										I
Botany	ī	2							3		4	2
Business							32	4	I		33	4
Chemical Engineering.	3								3		6	
Chemistry	47	17							9	7	56	24
Chinese		I										I
Economics	35	10							9	I	44	II
Education and Prac-					1							
tical Arts									57	25	57	25
Electrical Engineering.	I						5		2	2	6	700
English	44	101							2	2	46	103
English and Compara-									1	2	I	2
tive Literature Fine Arts	2	2									2	2
Geography	2	1	1		1 :::		1				2	ī
Geology	9	4			1				7	I	16	5
German	4	0	1								4	o o
Greek and Latin:	4	9					1				7	
Greek	I			1							ı	
Greek and Latin	1								2		3	
Latin	14	37			1						14	37
History	36	37							12	3	48	40
Indo-Iranian		I										I
Industrial Engineering.							5				5	
Journalism							5	8			5	8
Law			I		I	1					2	I
Library Service							3	17			3	17
Mathematics	10	2 I								1	10	22
Mechanical Engineer-							0.5		1		27	
ing							27				27	2
Music	2 2	2 7							4	2	6	9
Philosophy Physics	7								3		10	3
Physiology		3	1								3	3
Psychology	22	24							6	I	28	25
Public Law and Gov-		24		1	1	1		1				
ernment:			1		1							
Government	1	2		1							I	2
Public Law	24	23		1					2		26	23
Romance Languages:	1		1		1	1		1			}	
French		26									12	26
Italian		2									3	2
Romance Languages.									4	2	8	10
Spanish		10							1		_	10
Semitic Languages									1		5	
Slavonic Languages	I										I	
Social Science: Social Science									2		2	
Sociology		17						1	I	2	0	10
Zoölogy		3					1 :::		3	ī	7	4
	4											
Total	315	360	I		I	I	70	29	132	52	528	451
	1 3-3	1					1 1			1		

TABLE XI

CLASSIFICATION OF STUDENTS ATTENDING ONE OR MORE COURSES OF INSTRUCTION
IN THE VARIOUS DEPARTMENTS DURING THE WINTER AND SPRING SESSIONS
(EXCLUDING STUDENTS OF BARNARD COLLEGE, TEACHERS COLLEGE, THE
COLLEGE OF PHARMACY, ST. STEPHEN'S COLLEGE, AND UNIVERSITY
EXTENSION)

1929–1930	College	Law	Medicine	Engineering	Architecture	Journalism	Business	Library Service	Optometry	Dental and Oral Surgery	University Undergraduates	Seth Low Junior College	Graduate Faculties	Unclassified Students	Total
Department															
Anatomy. Anthropology Architecture Astronomy Bacteriology Biological Chemistry. Biology	15 22 85		115 102 118	9	110	2			I	55 57	7		10 69 3 4 9 27 4	7 I I	177 102 138 109 167 202 4
Botany Business:	53	• • •				• • • •		• • •	• • •		9		49	7	120
Accounting Advertising Agriculture Banking Bookkeeping Business English	74 9 2			3 			61 21 282 8				I		6 7 2 33	3 1 2 6 	381 82 32 291 61
Business Policy	1 36	 		9			149 234 292						24 37	2	150 234 363 287 22
Insurance	5			30			46 112 117						4 	I I	53 143 129 7
Salesmanship. Secretarial Correspondence Statistics. Stenography. Stenotypy.						 I	5 28 207 48 2				I		7	ı	7 29 207 58
Transportation. Typewriting. Typography. Chemical Engineering. Chemistry.	613	:::	:::	5 I			4I 2		· · · · · · · · · · · · · · · · · · ·		58		2 10 3 26 275	I 2 4I	66 55 5 121 1,166
Chinese. Civil Engineering Contemporary Civilization Dentistry: Child Dentistry.	1,120			100						33	2		3	1 I	26 120 1,332
Crown and Bridgework Dental Histology and Em- bryology										144	• • • •				144
bryology Facial Art Histology History of Medicine Neuro-Anatomy Oral Anatomy Operative Dentistry Oral Diagnosis										52 59 52					37 21 52 59 52
Oral Anatomy Operative Dentistry Oral Diagnosis Oral Hygiene										52 144		::::			52 144 29 59
		1	- 1	_ '	- 1			1		- 1		- 1			

TABLE XI—(Continued)

															_
1929-1930	College	Law	Medicine	Engineering	Architecture	Journalism	Business	Library Service	Optometry	Dental and Oral Surgery	University Under graduates	Seth Low Junior College	Graduate Faculties	Unclassified Students	Total
Department Oral Surgery Orthodontia Oral Pathology Periodontia Preventive Dentistry Prosthetic Dentistry Theory and Fractice Dermatology Diseases of Children Drawing Economics Education and Practical Arts Electrical Engineering Engilsh and Comparative Literature:	0.2	· · · · · · · · · · · · · · · · · · ·	206	25						92 78 93 63 144 33	I 21 4		242	7 1	111 92 78 93 63 144 33 206 206 7 669 383 194 134
Comparative Literature. English. Phonetics. Fine Arts. General Honors. General Science. Geology and Mineralogy: Geology.	129 1,317 188 32 6	2 I 		25	5		2 1 	2			87	348	14 46 1	26 64 1 2	443 2,484 19 249 34 10
Mineralogy Germanic Languages: Dutch German Gothic Scandinavian	339			23 1		ı	5		9		33	68	14 112 9 6	1 12	43 16 580 9 6
Greek and Latin: Classical Archaeology Classical Civilization. Classical Literature Classical Philology. Greek Latin History History of Science Hygiene Indo-Iranian Industrial Engineering Journalism Law (Private) Library Service Mathematics. Mechanical Engineering Mining and Metallurgy Metallurgy Metallurgy	160 17 19 30							 I 2			50 5 	19			13 180 17 18 60 153 1,143 38 13 11 65 195 616 259 1,171 219
Metallurgy Mining Music. Neurology Obstetrics and Gynecology Ophthalmology Orthopedic Surgery Oto-Laryngology	95		424 206 206 104 206	107 17 1	I	2	I				7		7 1 28 40	4 3	122 18 144 467 206 206 104 206

TABLE XI—(Continued)

1929-1930	College	Law	Medicine	Engineering	Architecture	Journalism	Business	Library Service	Optometry	Dental and Oral Surgery	University Undergraduates	Seth Low Junior College	Graduate Faculties	Unclassified Students	Total
Department															
Pathology			105							52			1		158
Pharmacology			208							153		:	3		364
Philosophy Physical Education				I			7	3			30		193	29	665
Physics, Mechanics, and Op-	1,252			4	I	1	7	I	I		II	341	II	• • •	1,630
tometry:															
Mechanics	0		١	70	20						I			I	110
Optometry														1	23
Physics	350			101					22			83	149	27	732
Physiology			116			'					9		18	3	158
Practice of Medicine			311											• • •	311
Psychiatry Psychology			308	• • • •					٠٠:	29				16	337 926
Public Law and Govern-	377	1				3	27	1	-		42	119	339	10	920
ment:															
Government	394			1		5	9				20	27	180	14	650
Public Law	36	88				21	9				8		280	23	468
Public Health			III							33			1		145
Religion	36			I							2		3		42
Romance Languages: Celtic					1								6		-
French	780				8	2	19	2			26	157	273	26	1,294
Italian								T			8	137	34		88
Spanish		l		ī		:::	18				4		115	3 8	319
Science of Language	12												13		25
Semitic Languages:	ł				1	i	1								
Arabic		I											10	2	13
Assyrian													I		1 2
Hebrew									· · ·				2 11		11
Syriac					1:::	1:::			l:::				5		5
Slavonic Languages:	1	1											3		3
Hungarian		I						. <i>.</i> .					1		2
Polish	1	1	1										1		2
Russian	49						3						14		68
Slavonic													2		2
Social Science.	1	1	1				١.	1				ļ	3	1	5
Social Economy Social Legislation									:::				31		31
Sociology	T.A.			1			1					77	146		280
Statistics	14 74		1:::	7									101		190
Surgery		J	309												309
Teachers College Fine Arts.	. I		1	1											I
Teachers College Music	. []		1												I
Textiles															I
Urology			102						···;					27	102
Zoölogy Miscellaneous Courses:	236	$ \cdots $							I		50	109	13	21	550
Engineering	0.5	·			l	l		l	l	l				1	98
Medicine	97	1	1	1:::		1		:::	1	75				Î	76
	1									,,,					
				-				-				-			

TABLE XII

AGGREGATE ATTENDANCE IN ALL COURSES, 1929-1930 (EXCLUDING COURSES IN THE SCHOOL OF MEDICINE, SCHOOL OF DENTAL AND ORAL SURGERY, SUMMER SESSION, UNIVERSITY EXTENSION, TEACHERS COLLEGE, BARNARD COLLEGE, COLLEGE OF PHARMACY, AND ST. STEPHEN'S COLLEGE)

1929–1930	Number of Half-Year Courses	Number of Registrations
Department		
Anthropology	6	30
Architecture	51	1,040
Botany	5 41	133
Business:	41	252
Accounting	18	639
Advertising	5	66
Agriculture	6	24
Banking	16	611
Business Policy	2 6	242 152
EconomicsFinance	0	482
Geography	13	404
Industrial Relations.	4	25
Insurance	10	66
Law	3	185
Marketing	11	216
Statistics	4	195
Stenography and Typewriting	4	69
Transportation	4 20	. 306
Chemistry	85	2,605
Chinese	10	10
Civil Engineering	30	295
Contemporary Civilization	II	2,326
Economics	52	1,781
Electrical Engineering	36	488
Engineering Drafting	7	120
English and Comparative Literature: Comparative Literature	18	714
English	98	5,542
Fine Arts	20	434
General Honors	2	65
Geology and Mineralogy:		
Geology	37	470
Mineralogy	7	53
Germanic Languages: Dutch	2	18
German	38	010
Gothic	ı	II
Scandinavian	2	10
Greek and Latin:		
Classical Archaeology	4	26
Classical Civilization	8	249
Classical Literature	2 2	30
Classical Philology	14	104
GreekLatin	22	436
History	63	2,022
History of Science	2	38
Indo-Iranian	10	25
Industrial Engineering	10	79
Journalism	40	1,338
Law (Private)	62 66	4.784
Library Service	00	2,551

TABLE XII—(Continued)

1929–1930	Number of Half-Year Courses	Number of Registrations
Department		
Mathematics	41	1,732
Mechanical Engineering	45	777
Mining and Metallurgy:		
Metallurgy	24	178
Mining		63
Music	24	514
Philosophy Physical Education.		924
Physics, Mechanics, and Optometry:	15	3,335
Mechanics	3	154
Optometry	17	164
Physics	54	1,540
Psychology	31	1,142
Public Law, Government, and Comparative Jurisprudence:	3-	-7-4-
Government	20	645
Public Law	22	635
Religion	2	46
Romance Languages and Literatures:		
Celtic		12
French	60	2,486
Italian	15	126
Spanish	20	495
Science of Language	6	39
Semitic Languages: Arabic		
Assyrian	4	22
Hebrew	3	7
Semitic	5	23
Syriac	3	7
Slavonic Languages:	3	,
Russian	7	97
Slavonic	4	4
Social Science:	•	
Social Legislation	4	51
Sociology	23	443
Statistics	12	263
Zoölogy	31	890
Miscellaneous Course:		
Engineering	I	98
Total	1,565	49,767
10141,	1,303	49,707

TABLE XIII

ALL STUDENTS IN UNIVERSITY EXTENSION CLASSIFIED ACCORDING TO FACULTIES-RESIDENT AND NON-RESIDENT

	Resident	Extra- mural	Special	Home Study	Total
Non-matriculated:					
Columbia	10,227	2,867	575	9,928	23,597
Teachers College (exclusively)	103				103
Matriculated:					
Columbia College	557				557
Barnard College	51			.,	51
Seth Low Junior College	204				204
University Undergraduates	137				137
Graduate Faculties	1,769				1,769
School of Law	126				126
Engineering	63				6,
Architecture	57				5
Journalism	46				40
Business	294				29
Teachers College	929				929
Library Service	45				4.
Unclassified University	155				15
Optometry	II				I
Total	14,774	2,867	57.5	9,928	28,14

TABLE XIV UNIVERSITY EXTENSION

AGGREGATE ATTENDANCE ON COURSES, RESIDENT, EXTRAMURAL, AND HOME STUDY

1929-1930	Numbe	r of Hal	f-Year (Courses	Nur	nber of I	Registra	ions
1929 1930	Resi- dent	Extra- mural	Home Study	Total	Resi- dent	Extra- mural	Home Study	Total
Anthropology	10			10	257			257
Architecture	65			65	1,485			1,485
Art			I	I			406	406
Astronomy	3		1	4	99		23	122
Biblical Literature			I	I			35	35
Biology			I				235	235
Botany	3		1	4	44		43	87
Business:								
Accounting	35		5				664	2,090
Actuarial Mathematics			3	3			21	21
Administration and Organization			١ ,				205	205
Advertising	26		3	26	930		205	930
Agriculture	8		8				139	386
Banking	10		I				289	561
Bookkeening	1 4		ī		107		133	240
Bookkeeping English (Business)	4		I		288		134	422
Finance	12			12				822
Geography	14	2	2	18		55	138	390
Industrial Relations	3			3	64			64
Insurance	و ا		1		160		91	251
Investments			1				699	699
Law (Business)	8		1				184	560
Marketing	13		I				40	551
Mathematics (Business)			3				49	49
Office Machinery	2			2	29			29
Real Estate	5	1		5 8	296			296 192
Salesmanship Secretarial Correspondence.	0 4		1		192 151		157	308
Statistics	1 4		1 1				40	299
Stenography	10		1 1	19				590
Stenotypy	1 2		1	2				13
Transportation	2			2				35
Typewriting	14		1	15			18	449
Typography	2			2	126			126
Chemical Engineering			I				62	62
Chemistry	21		I				92	742
Civics			I	1 -			19	19
Civil Engineering	4			4 6				82 46
Clothing Comparative Literature	10							430
Cookery	3		1	3				27
Czechoslovak	1 1			1				2
Drafting	14		3				173	437
Drawing	5		l					135
Economics	22		1				60	949
Education		41		41		2,311		2,311
Electrical Engineering	8			8				225
English	144		21			211		10,760
Fine Arts	12			12				184
French								2,375
General Science	6		I	6	35			52 102
Geology	21						207	081
Government	17					37		654
Greek	1 6						44	71
History	42					49		2,533
Church History			2				13	13
			1					

TABLE XIV—(Continued)

	Numbe	r of Hal	f-Year (Courses	Nun	iber of l	Registra	ions
1929-1930	Resi- dent	Extra- mural	Home Study	Total	Resi- dent	Extra- mural	Home Study	Total
Hungarian	3			3	4			4
Hygiene	Ι.			1	14			14
Indo-Iranian	1			I	5			5
Industrial Engineering	4			4	98			98
Įtalian	18		4	22	317		99	416
Latin	10		8	18	55		413	468
Law	5			5	184			184
Library Service	21		10	31	356		99	455
Mathematics	31		II	42	945		1,433	2,378
Metalworking	3 2			3	11			11
Mineralogy	22		1	23	31 366			3 I 4 I S
Neurology	2 2			23	72		49	72
Nursing		2		2				95
Persian	1			ĩ		93		1
Philosophy	21		8	20	661		76	737
Phonetics	10	1		11	151	6		157
Photoplay Composition			I	ı			11	II
Physical Education	9			9	113			113
Physical Training	2			2	18			18
Physics	6		I	7	210		47	257
Physiology	2			2	76			76
Polish	3			3	4			4
Portuguese			1	I			, 7	7
Psychology	48	7	4	59	2,196	319	641	3,156
Public Health			2	2			25	25
Public Law	7	2		9	431	51		482
Religion	3			3	15			15
Religious Education	8			1 0	15 52			15 52
Scouting			ī	0	54		105	105
Slide Rule			ī	ī			103	103
Social Economy	4			4	38			38
Sociology	20		I	21	535		2.3	558
Spanish	39		0	48			260	1.030
Structural Mechanics	4			4	85			85
Teachers College Fine Arts	21			21				110
Teachers College Hygiene	3			3	20			20
Teachers College Music	7	I		8	15	28		43
Textiles	6			6	93			93
Zoölogy	5		I	6	237		8	245
Total	6 -		166				12,840	.0 .6
	1,062	60	700	1 7 207	32,446	3 170		AK A0 2

TABLE XV

STUDENTS IN SPECIAL COURSES IN UNIVERSITY EXTENSION (NOT INCLUDED IN OTHER TABLES)

Course	Winter Session	Spring Session	Both Sessions	Total
Advanced Dentistry	I			I
Advanced Medicine	69	44	14	127
Agriculture		42		42
History	8	I	18	27
Library Service		I		I
Mining and Metallurgy		26		26
Public Health		20		20
Recreation Course (Barnard)	63	38	77	178
Spoken Language (French)	77	47	26	150
Swimming (Barnard)	2		I	3
Total	220	219	136	575

TABLE XVI

AGE, PREPARATION, AND OCCUPATION OF STUDENTS REGISTERED IN HOME STUDY

A. Age	Men	Women	Total	B. Preparation	Number
Under 15	3 151 951 1,265 1,042 812 501 360 229 134 76 42 13	4 55 576 827 784 664 492 332 240 132 52 21	7 156 1,527 2,092 1,826 1,476 993 692 469 266 128 63	Part Grammar School Graduates of Grammar School Part High School Graduates of High School Part College Graduates of College Holders of Higher Degrees Part Business School Graduates of Business School Part Professional School Part Normal School Graduates of Professional School Oraduates of Normal School Graduates of Normal School	85 657 1,595 2,168 1,181 1,492 493 421 491 208 683 83 231
75 or over Undetermined	5,707	4,221	17 190 9,928	Undetermined	9,928

C. OCCUPATIONS

Accountant	263	Fireman	7	Pharmacist	
	203	TI	7	Diaminacist	27
Actor and Actress		Housewife		Physician	379
Agricultor	51	Industrial Worker.	876	Policeman	20
Architect	I 2	Lawyer	183	Religious Worker	107
Artist	35	Military Officer and		Social Worker	79
Business Men (Ex-		Soldier	27	Statistician	28
exutives, etc.)	1,612	Musician	76	Student	222
Chemist	56	Naval Officer and		Teacher	555
Chiropractor	14	Sailor	37	Technician	120
Clerk	2,772	Nurse (Registered)	529	Writer	117
Dentist	68	Optometrist	7	Undetermined	138
Domestic	196	Osteopath	5	Total	9,928
				1	

SUMMER SESSION, 1930

Classification	Number	Per- centage
STUDENTS CLASSIFIED ACCORDING TO SEX		
Men		30.8
Total	13,887	
STUDENTS CLASSIFIED AS OLD AND NEW		
Previously Registered	7,470 6,417	53.8
Total	13,887	
STUDENTS CLASSIFIED ACCORDING TO FACULTIES		
I. Non-matriculated		40.2
II. Matriculated		59.8
Columbia College	261	
Seth Low Junior College		
St. Stephen's College		
Barnard College	128	
Business B.S.		
Business M.S		
Business CertPharmacy B.S.		
Optometry B.S.		
Architecture B.Arch	24	
Journalism B.Lit	8	
Journalism M.S		
Law LL.B		
Law LL.M Engineering B.S.	4 7	
Engineering M.S Engineering (C.E., E.E., etc.)		
Library Service B.S	192	
Library Service M.S		
Library Service Cert. Dentistry D.D.S.	42	
Graduate Faculties:	3	
A.M.		
Political Science	247	
Philosophy		
Pure Science		
Union Theological SeminaryPh.D.	2	
Political Science	86	
Philosophy	125	
Pure Science. Union Theological Seminary	75	
Union Theological Seminary		
Education		
Business		
Philosophy	4	
Pure Science		
Teachers College		
B.S		
A.M.		
Unclassified	476	
Total I and II	13,887	

Classification	Number	Per- centage
. STUDENTS CLASSIFIED ACCORDING TO TEACHING POSITIONS		
I. Not Engaged in Teaching	4,490	32.3
II. Engaged in Teaching	9,397	67.7
Elementary Schools	2,850	
Secondary Schools	3,721 1,098	
Normal Schools.	1,098	
Industrial Schools	9	
Principals	452	
Assistant Principals	23	
Supervisors	248	
Superintendents	170	
Special Teachers	101	
Private School Teachers	203	
Librarians	25	
Technical Schools	32	
Vocational Schools	48	
Hospitals	73	
State Supervisors	9	
Private Teachers	55 10	
Institutes	40	
College Presidents	40	
College Presidents. Deans of Women in High Schools.	21	
College Deans	11	
Nursery Schools.	20	
Registrars	3	
Vocational Guides	9	
Vocational Guides	2	
Private Kindergarten Teachers	5	
Total I and II	13,887	
. STUDENTS CLASSIFIED ACCORDING TO RESIDENCE		
North Atlantic Division:		
Connecticut	332	
Maine	64	
Massachusetts	362	
New Hampshire	44	
New Jersey	917	
*New York:		
Outside of New York City	1,520 1,892	
Queens	262	
Richmond		
Brooklyn	3 I 627	
*Total. 1.332	021	
*Total, 4,332 Pennsylvania Rhode Island	1,267	
Rhode Island	54	
Vermont	50	
- Total North Atlantic Division	7,422	53.5
South Atlantic Division:		
Delaware	46	
District of Columbia	196	
Florida	127	
Georgia	200	
Maryland	309	
North Carolina	296	
South Carolina	168	
Virginia	293	
West Virginia	159	
Total South Atlantic Division	1,794	12.0

Classification	Number	Per- centage
North Central Division: Illinois. Indiana lowa. Kansas. Michigan. Minnesota. Missouri Nebraska North Dakota South Dakota South Dakota Wisconsin.	291 402 204 165 313 155 263 104 15	
Ohio Total North Central Division	2,920	21.0
South Central Division: Alabama. Arkansas. Kentucky. Louisiana. Mississippi. Oklahoma. Tennessee. Texas.	154 43 145 59 77 130 115	
Total South Central Division	1,055	7.6
Western Division: Arizona California Colorado Idaho Montana Nevada New Mexico Oregon Utah Washington Wyoming	6 139 78 10 20 1 6 19 15 32 8	
Total Western Division	334	2.4
Insular and Non-Contiguous Territories: Canal Zone. Hawaiian Islands. Porto Rico. Philippine Islands. Total Insular and Non-Contiguous Territories.	4 8 26 14	
Total (United States)	52 13,525	-4
Foreign Countries: Argentina Austria Belgium Brazil Bulgaria Canada Chile China Chosen (Korea) Colombia Cuba Egypt France Germany Great Britain	1 1 1 3 3 140 4 48 7 3 25 3 7 5	

	Classification	Number	Per centa
Gre	ece	2	
Ho	land	I	
Ho	nduras	Ī	
Hu	ngary	I	
Ind	ia	5	
Iris	h Free State	ĭ.	
	у	2	
	a	I	
	an	16	
	xico	3	
Ne	v Zealand	2	
	way	2	
Pal	estine	5	
Par	ama	ĭ	
Per	ц	Ī	
Ru	mania	3	
Sal	vador	2	
	n	ī	
	th Africa	4	
Spa		3	
Str	nits Settlements	Ť	
	den	2	
Svr		Ī	
	key	ī	
	ezuela	ī	
We	st Africa	Ť	
***	, and the state of		
7	'otal	310	2.

Subjects	Number of Courses	Number of Registrations
. Aggregate Attendance on		
Courses:		
Accounting	10	133
AdvertisingAnatomy	3	88
Anthropology	2	40
Architecture	10	97
Astronomy	2	53
Bacteriology	I	19
Banking	2	45
Biochemistry	6	56 160
BiologyBookkeeping	7	18
Botany	6	51
Business English	I	18
Cancer Research	I	5
Chemical Engineering	3	30
Chemistry	40	541
Teachers College Chemistry Christian Ethics	2 I	31
Classical Civilization	1	44
Clothing	1.4	200
Comparative Literature	4	287
Contemporary Civilization	2	63
Cookery	10	335
Drafting, Engineering	5	32
Economics. Education.	10	307 18,247
Electrical Engineering.	346 4	10,24/
English	43	1,588
Teachers College English	4	133
Finance	2	78
Fine Arts.	7	155
Teachers College Fine Arts	26	827 611
Geography	32 15	198
Geology	6	51
German	10	195
Government	4	107
Greek	3	17
History History of Religions	25	1,068
Home Management.	I	59
Household Arts.	2	23
Household Chemistry	5	30
Household Economics	4	65
Household Engineering	6	97
Hygiene Industrial Arts.	4	350
Institution Management	3	86
Italian	8	77
Japanese	I	2
Journalism	2	35
Latin	17	300
Law Library Service	14	265
Marketing	54 1	1,178
Mathematics.	13	19 487
Metalworking	2	41
Music	II	122
Teachers College Music	60	765
Neurology	I	16
New Testament Nursing.	2	39
Nutrition	10	189
Old Testament	I	8
Parliamentary Law	2	19
Philosophy	7	114

Subjects	Number of Courses	Number of Registration
Philosophy of Religion	3	89
Phonetics	2	17
Physical Education	40	1.182
Physics	16	100
Physiology	7	68
Practical Theology	Á	89
Practice of Medicine	ĭ	15
Psychology	13	469
Public Health	3	61
Public Law	2	48
Recreation		359
Religion	4 2	339
Religious Education	4	76
Russian	2	1 6
Secretarial Correspondence	2	20
Social Science	-	132
Sociology	4	131
Spanish	15	261
	6	
Speech	2	297
Statistics		46
Stenography	3	67
Stenotypy	I	4
Systematic Theology	I	7
Textiles	3	32
Typewriting	3	114
Zoölogy	2	46
Total	1,060	34,567

Respectfully submitted,

Edward J. Grant,

Registrar

September 1, 1930

STATISTICS REGARDING THE TEACHING AND ADMINISTRATIVE STAFF FOR THE ACADEMIC YEAR 1929–1930

VACANCIES

By Death, Resignation, Retirement, or Expiration of Term of Appointment, Occurring, Unless Otherwise Indicated, on June 30, 1930

MARION ADKERSON, A.M., Assistant in Sanitary Science (July 15, 1930) MORTIMER J. ADLER, A.B., Instructor in Psychology JAMES C. ALLAN, D.D.S., Instructor in Dentistry (July 31, 1930) HILDA W. ALLEN, M.D., Assistant in Neurology IRWIN W. ALPERT, M.D., Instructor in Anatomy ANSTEN ANSTENSEN, A.B., Lecturer in German NICHOLAS P. APPY, M.D., Assistant in Medicine (September I, 1930) IRA H. AYRES, M.S., Lecturer in Chemistry THEODORE L. BADGER, M.D., Assistant in Medicine HARRY BAKWIN, M.D., Instructor in Diseases of Children RUTH M. BAKWIN, M.D., Assistant in Diseases of Children MARGARET BANCROFT, A.M., Lecturer in History MAX BARUCH, M.D., Instructor in Surgery JAMES S. P. BECK, B.S., Instructor in Pathology SAMUEL D. BELL, M.D., Instructor in Diseases of Children BERTHA BISBEY, A.M., Re Assistant in Food Chemistry Research DONALD C. BLAISDELL, A.M., Instructor in Government OSWALD H. BOLTZ, M.D., Assistant in Neurology SARAH A. BONNETT, M.D., Instructor in Psychiatry

Anne Bourquin, Ph.D., Research Assistant in Food Chemistry

CHARLES A. BRADLEY, JR., B.S., Lecturer in Chemistry SANGER BROWN, II, M.D., Associate

in Neurology

THEODORE G. ADAMS, A.M., Assistant

in Zoölogy

CHARLOTTE BÜHLER, Ph.D., Visiting Lecturer in Psychology (February 1, 1930) RUTH L. BUNZEL, Ph.D., Lecturer in Anthropology HENRY BURCHELL, A.M., Director of the Casa Italiana IRVIN J. BUSSING, A.M., Instructor in Economics STANLEY E. CAIRNCROSS, A.M., Assistant in Chemistry GEORGE F. CAMPANA, M.D., Assistant in Neurology GEORGE F. CANFIELD, LL.B., Dwight Professor of Law HUGH CHAPLIN, M.D., Associate in Diseases of Children OSCAR J. CHASE, JR., D.D.S., Associate Professor of Dentistry (November 1, 1929)
IRVING CLAMAN, M.D., Assistant in Diseases of Children Adolphe Cohn, A.M., LL.B., Professor of the Romance Languages and Literatures, retired (Died February 12, 1930) HAROLD Cox, M.D., Assistant in Obstetrics and Gynecology LELAH M. CRABBS, Ph.D., Assistant Professor of Education ELLWOOD P. CUBBERLEY, LL.D., Visiting Professor of Education BROR E. DAHLGREN, D.M.D., Associate Professor of Dentistry Luz M. Dalmau, Ph.C., Assistant in Mycology Charles S. Danzer, M.D., Instructor in Medicine DAVID DAVIDSON, Ph.D., Research Assistant in Chemistry JOHN S. DAVIS, JR., M.D., Assistant in Neurology (January I, 1930) Solomon M. Delson, Ph.B., Lecturer in French GEORGE V. DENNY, A.B., Associate Director of University Extension CHARLES N. DOWD, ScD., Professor

of Clinical Surgery

MILES A. DRESSKELL, A.B., M.G., Visiting Assistant Professor of Music

WALTER F. DUGGAN, A.M.. Instructor in Physiology

MARGARET EAGLESON, A.M., Lecturer in Economics

WILLET L. ECCLES, Ph.D., Assistant to the Dean of Columbia College ARCHIBALD P. EVANS, M.D., Instructor in Neurology

CHARLES K. EVES, A.B., Lecturer

in English HARTWELL H. FASSNACHT, A.M., Assistant in Chemistry

JOSEPH FELD, Chem.E., Instructor in Mathematics

GEORGE FILIPETTI, Ph.D., Assistant Professor of Business Administration

SEYMOUR FISKE, M.D., Assistant in Medicine

Victor G. Fourman, A.M., Research Assistant in Chemistry

VILLARD R. GOLSAN, M.D., Assistant in Urology

ADOLPH GRANET, M.D., Instructor in Medicine (October 1, 1930)

OHN L. GRANT, LL.B., Assistant to the Dean of the Law School and Associate in Law JOHN L.

GAYLORD W. GRAVES, M.D., ciate in Diseases of Children M.D., Asso-

HOWARD A. GRAY, A.M., Lecturer in Psychology MORRIS GROSSMAN, M.D., Instructor

in Neurology LILLIAN HALL, A.B., Research Assist-

ant in Anatomy

(March 15, 1930)
LAWRENCE V. HANLON, M.D., Assistant in Diseases of Children HENRY B. HANSTEIN, E.E., Instructor in Electrical Engineering

MARGARET HARLAND, A.B., Instructor in Anatomy

ALVIN R. HARNES, M.D., Assistant in Diseases of Children

MERYLE HAUSER, Instructor in Physical Education

CLARENCE F. HAVILAND, M.D., Clinical Professor of Psychiatry (Died January 1, 1930) EVAN HAYNES, J.D., Visiting Lecturer

in Law PAUL R. HAYS, A.B., Instructor in Greek and Latin

MRS. JENNIE HEISER, B.B.A., Assistant in Collegiate Educational Research

(September 30, 1930) ELLWOOD HENDRICK, Sc.D., Curator of the Chandler Chemical Museum

(Died October 29, 1930)

ALFONS HILKA, Ph.D., Professor of French (February 1, 1930)

WARD A. HOLDEN, M.D., Clinical Professor of Ophthalmology

Sabra J. Hook, M.S., Assistant in Zoölogy

RICHARD W. HOPE, A.B., Lecturer in Philosophy

ERNEST HORN, Ph.D., Visiting Professor of Education

MARION HORTON, B.L.S., Supervising Instructor in Home Study Courses (School of Library Service) Anson P. S. Hoyt, M.D., Instructor

in Bacteriology

THEODORE A. JACKSON, A.M., Lecturer in Psychology

(February 1, 1930) CHARLES H. JAEGER, M.D., Assistant Professor of Orthopedic Surgery Francis Keally, B.S., Associate in Design

GERTRUDE I. KELLER, Lecturer in English

BERNARD KELLEY, M.D., Assistant in Diseases of Children

PAUL A. KENNEDY, A.M., Assistant in Diseases of Children

CHRISTOPHER L. KENNY, Instructor in Chemistry Brina Kessel, M.D. Diseases of Children M.D., Assistant in

ELIZABETH KILPATRICK, M.D., Instructor in Psychiatry

GEORGE KING, M.D., Assistant Professor of Clinical Medicine (Died June 4, 1930)

CAMILLE KJERESZTURI, M.D., Assistant in Diseases of Children

Anita E. Klein, A.M., Lecturer in Greek and Latin

JOSEPH W. KRUTCH, Ph.D., Associate in Journalism

CHRISTINE LADD-FRANKLIN, LL.D., Lecturer in Psychology (Died March 5, 1930)
IRVING LANGMUIR, Ph.D., Lecturer

upon the Charles Frederick Chandler Foundation

PHILIP R. LEHRMAN, M.D., Instructor in Neurology

GEORGE N. LEONARD, M.D., Assistant in Diseases of Children

ELSIE M. LEWIS, A.M., Lecturer in Zoölogy

(February 1, 1930) RAYMOND A. LEYDIG, A.B., Instructor in Government

A. LICHT, Associate GEORGE Design

EDITH M. LINCOLN, M.D., Instructor in Diseases of Children

CHRISTOPH U. LINDER, M.D., sistant in Diseases of Children EDGAR R. LORCH, A.B., Assistant in Mathematics

HERBERT GARDINER LORD, A.M., Professor of Philosophy, retired (Died March 12, 1930) RUSSELL D. LOUCKS, B.S., Assistant

in Chemistry

LEA MCI. LUQUER, Ph.D., Associate Professor of Mineralogy, retired (Died January 30, 1930)
ALEXANDER V. LYMAN, M.D., In-

structor in Physiology

(March 1, 1930) LAWRENCE K. McCAFFERTY, M.D., Instructor in Dermatology (Died January 20, 1930)

VITTORIO MACCHIORO, Ph.D., Visiting Professor of Religion

(February 1, 1930) CHARLES F. MCCOMBS, B.L.S., Associate in Library Administration HAROLD F. McGuire, A.B., Assistant

in Law

ETHELBERT MCKENNON, B.S., Research Assistant in Anatomy (September 1, 1930)

MARY MACLACHLAN, M.D., Instruc-

tor in Psychiatry

BERNICE L. MACLEAN, A.B., Instruc-

tor in Anatomy Frank McLean, M.D., Assistant in Diseases of Children WALLACE MACMURRAY, A.M., In-

structor in English F. RONALD MANSBRIDGE, A.B., In-

structor in English JACOB MANTINBAND, M.D., Assistant

in Diseases of Children

CHAIM J. MEHLMANN, M.D., Assistant in Dermatology

JERUSHA G. MEIGS, B.L.S., Associate in School Library Service ANTOINE MEILLET, D.èsL., fessor of French

ROBERT M. MILLER, M.D., Instructor in Anatomy

PHILIP M. MOLT, Litt.B., Instructor in French

UNDERHILL MOORE, LL.B., Nash Professor of Law

(December 31, 1929) MARY COMPTON MOSS, A.B., Assist-

ant in Dermatology HARMON L. MUDD, A.B., Instructor

in Economics

LILLIAN I. NELSON, A.B., Research Assistant in Food Chemistry

GERTRUDE H. B. NICOLSON, Instructor in Diseases of Children JOHN NOTKIN, M.D., Assistant in Neurology

HELEN DRUHAN O'BRIEN, M.D., Assistant in Medicine

PHILIP D. O'CONNOR, M.D., Instructor in Ophthalmology (January 1, 1930)

MARY P. O'DONNELL, B.S., Instructor in Physical Education

JOHN C. OSWALD, Associate in History of Printing

SAMUEL PARKER, M.D., Instructor in Psychiatry

JEAN H. PATTISON, M.D., Assistant in Diseases of Children
. Allison Peers, M.A., Visiting

Professor of Modern Comparative Literature

GEORGE B. PEGRAM, Ph.D., Sc.D., Dean of the Faculty of Engineering CLEMENTE PEREDA, JR., Lecturer in Spanish

OSBORN P. PERKINS, M.D., Instructor in Ophthalmology

(January 1, 1930)

ALFRED POLGAR, M.D., Assistant in Medicine

EILEEN POWER, Visiting Lecturer in History

HERMAN F. PRANGE, D.D.S., Assistant Professor of Dentistry

MARY A. PRENTISS, A.M., Lecturer in Economics (February 1, 1930)

GIUSEPPE PREVITALI, M.D., Assistant Clinical Professor of Diseases of

Children WILLIAM B. PROUT, M.D., Assistant in Diseases of Children

J. Harris Purks, Jr., A.M., Instructor in Physics

EMILY JAMES PUTNAM, A.B., ASSOciate in Greek and Latin EDMOND J. QUINN, Ph.D., Instructor

in Chemistry

(November 30, 1930)
DAVID RASKIND, M.D., Assistant in Diseases of Children

JOHN RECCA, M.D., Assistant in Diseases of Children

ROBERT J. REEVES, M.D., Instructor in Medicine EDWARD A. RICHARDS, A.M., In-

structor in English (October 1, 1930)

ALAN H. RICHARDSON, B.S., Instructor in Chemistry

ROWENA RIPIN, Ph.D., Lecturer in Psychology

TRINITA RIVERA, B.S., Assistant in Chemistry FREDERICK C. ROSE, A.B., Assistant

in Physics LESTER ROSENBERG, M.D., Assistant

in Diseases of Children

WINSTON U. RUTLEDGE, M.D., Instructor in Dermatology (January 1, 1930)

Mary Sabarth, Lecturer in German

HENRY W. SACKETT, A.B., Lecturer in Journalism (Died December 9, 1929)

WILLIAM ST. LAWRENCE, M.D., Associate in Diseases of Children

GERHARD M. SALZMANN, A.B., Assistant in Chemistry

VICTOR B. SCALISE, Met.E., Assistant in Metallurgy

(September 30, 1930)

HENRY R. SEAGER, Ph.D., Litt.D., Professor of Political Economy (Died August 23, 1930)

STEPHEN SERGHIESCO, Ph.D., Lecturer in Mathematics

HENRY S. SHARP, A.M., Instructor in Geology

CHARLES F. SHARRY, A.B., M.D., Instructor in Surgery (September 30, 1930)

VIDA P. SHERWOOD, M.D., Assistant in Dermatology

(Died February 13, 1930) GERALD S. SHIBLEY, M.D., Assistant Professor of Medicine

JAMES A. SHIELD, M.D., Instructor in Psychiatry

GERTRUDE SHULTS, M.D., Assistant in Diseases of Children

CHARLES HENDEE SMITH, Professor of Clinical Diseases of Children

G. MILTON SMITH, JR., B.S., Lecturer in Psychology

WILLIAM J. SPRING, M.D., Instructor in Physiology

WILLIAM A. SQUIRES, D.D.S., Associate Professor of Dentistry

(November 1, 1929) Leo Stern, A.M., Lecturer in Finance HAZEL K. STIEBELING, A.M., Research Assistant in Food Chemistry

HARRY C. STORRS, M.D., Instructor in Neurology Archibald M. Strong, M.D., Asso-

ciate in Medicine JOSEPH SURLS, M.D., Instructor in

Surgery LUCY P. SUTTON, M.D., Instructor in

Diseases of Children

TAUSEND, M.D., In-STANLEY S. structor in Anatomy

TAYLOR, M.D., Instructor KENNETH in Medicine

DOROTHY S. THOMAS, Ph.D., Assistant Professor of Education

Walter G. Thomas, S.B., Associate in Design

CHARLES B. THOMPSON, M.D., Instructor in Psychiatry JOHN THURROTT, M.D., Assistant in

Neurology CLARE M. TOUSLEY, A.B., Lecturer in

Social Science Cornelius H. Traeger, M.D., In-

structor in Physiology

(January 1, 1930) LEVERING TYSON, Litt.D., Associate Director of University Extension

(July 31, 1930) PHILIP VAN INGEN, M.D., Clinical Professor of Diseases of Children NICHOLAS V. VINNER, A.B., Assistant

in Slavonic Languages JOHN V. WARD, M.D., Assistant in Diseases of Children

GERTRUDE M. WARE, Ph.D., Instructor in Chemistry

ARTHUR L. WASHBURN, M.D., Assistant in Medicine (September 1, 1930)

Louis R. Welzmiller, M.D., Lecturer in Optometry

GEORGE R. WENDT, A.M., Assistant in Psychology

Frances B. Whalen, A.M., Research Assistant in Food Chemistry RUTH WHEELER, Ph.D., Lecturer in

Medicine WILLIAM K. WHEELER, M.D., Assist-

ant in Urology THOMAS H. WHITEHEAD, A.M., Assistant in Chemistry

CLARKE WILLIAMS, B.S., Assistant in Physics

EDGAR I. WILLIAMS, M.S., Associate in Design

WILBUR L. WILLIAMS, A.B., Lecturer in Philosophy

WILLIAM R. WILSON, M.D., Assistant in Diseases of Children

HELEN T. WOOLLEY, LL.D., Director of the Child Development Institute

and Professor of Education ALPHONSE A. WREN, M.D., Associate in Urology

(December 31, 1929)

PROMOTIONS

To Take Effect, Unless Otherwise Indicated, July 1, 1930

Name	From	To	Subject
ELIZABETH I. ADAMSON, A.B., M.D. ANNE ANASTASI, A.B DANA W. ATCHLEY, B.S., M.D	Lecturer	Instructor Associate	Psychology

Name	From	To	Subject
Leslie P. Beebe, A.M	Lecturer	Instructor	Business Admin- istration
SIMON A. BEISLER, Ph.B., M.D FRANK B. BERRY, M.D (November 1, 1930)			Urology Surgery
JOHN M. BRUSH, M.D (October 1, 1930)	Assistant	Instructor	Diseases of Chil- dren
Maurice Buchbinder, B.S., D.D.S.	Instructor	Assistant Professor	Dentistry
JOHN P. CAFFEY, A.B., M.D	Associate	Assistant Clinical Professor	Diseases of Children
George F. Cahill, M.D	Assistant Professor	Associate Professor	Urology
TERESA CARBONARA, A.M	Lecturer	Instructor	
(3T	Instructor		Surgery
ARTURO L. CARRION, M.D	Instructor	Associate	Bacteriology Philosophy
LEON H. CORNWALL, Ph.B., M.D	Assistant	Associate	Neurology
	Professor	Professor	
WILLIAM F. CUNNINGHAM, M.D (November 1, 1930)	Instructor	Associate	Surgery
George E. Daniels, B.S., M.D.	Associate	Assistant Professor	Clinical Psy- chiatry
MARTIN H. DAWSON, A.B., M.D.	Associate	Assistant Professor	Medicine
Angel del Río, D. en Hist	Instructor		Spanish
Edward J. Donovan, B.S., M.D	Associate	Assistant Professor	Diseases of Children and Surgery
John H. Dunnington, A.B., M.D.	Associate	Assistant Professor	Ophthalmology
SAMUEL B. ELLIS, M.S	Assistant		Chemistry
SAMUEL B. ELLIS, M.S	Assistant	Instructor	
HERMANN FEIT, M.D	Associate	Assistant Professor	Dermatology Urology
LUCIA S. FISHER, A.B	Assistant	Lecturer	History
JULIAN M. FRESTON, M.D.	Instructor	Associate	Urology
MARIANNE GOETTSCH, A.M	Assistant	Instructor	Biological Chemistry
Paul Gross, M.D. LEONARD A. HALLOCK, A.B., M.D.	Instructor		Dermatology
JOHN M. HANFORD, A.B., M.D.	Assistant	Instructor Assistant	Urology Clinical
Jonn. 11. 11. 11. 11. 11. 11. 11. 11. 11.	21350CIACE	Professor	Surgery
HENRY H. HART, M.D	Instructor		Psychiatry
LELAND E. HINSIE, M.D	Clinical	Professor	Clinical
ALEITA HOPPING, Ph.D	Professor Associate	Assistant	Psychiatry Physiology
JOHN T. HOWELL, JR., B.S., M.D.	Instructor	Professor Associate	Diseases of Chil-
JAMES H. HUDDLESON, A.B., M.D.	Instructor	Associate	dren
EVERETT C. JESSUP, B.S., M.D (January 1, 1930)	Instructor	Assistant Clinical	Neurology Medicine
F. Elmer Johnson, A.B., M.D	Clinical	Professor Clinical Professor	Diseases of Children
Maxwell Karshan, Ph.D	Professor Assistant	Associate	Biological Chemistry
G. Marshall Kay, M.S	Professor Lecturer	Professor Instructor	Chemistry Geology
Daniel B. Kirby, M.D.	Instructor	Associate	Ophthalmology

Name	From	To	Subject •
YALE KNEELAND, A.B., M.D	Assistant	Instructor	
ENRIQUE KOPPISCH, M.D RAPHAEL KURZROK, Ph.D., M.D	Instructor	Associate	Pathology
RAPHAEL KURZROK, Ph.D., M.D	Assistant	Associate	Obstetrics and
SAMUEL W. LAMBERT, JR., A.B., M.D.	Assistant	Instructor	Gynecology Medicine
Azubah J. Latham, A.B	Assistant	Associate	Speech
	Professor	Professor	
JOHN LEVY, A.M., M.D	Instructor		Psychiatry
ROBERT L. LEVY, A.M., M.D	Assistant	Associate	Clinical Medi-
PUTNAM C. LLOYD, A.B., M.D	Professor	Professor Instructor	cine Medicine
ROBERT F. LOEB, M.D.	Assistant	Associate	Medicine
	Professor	Professor	
JOHN D. LYTTLE, A.B., M.D	Associate	Assistant	Diseases of Chil-
		Clinical Professor	dren
ROBERT B. McGraw, A.B., M.D	Clinical	Professor	Psychiatry
TODAKI BI MICOMINI, MIDI, MIDI, I	Professor	110100001	2 by chiacry
GERALD F. MACHACEK, A.B., M.D.			Dermatology
THOMAS T. MACKIE, A.B., M.D.	Assistant	Instructor	
AUBREY B. MACLEAN, M.D (October 1, 1930)	Instructor	Associate	Diseases of Chil- dren
STAFFORD MCLEAN, M.D	Assistant	Clinical	Diseases of Chil-
	Clinical	Professor	dren
	Professor		
GRACE MACLEOD, Ph.D		Professor	Nutrition
HARRIET B. MACPHERSON, Ph.D	Professor	Assistant	Cataloguing and
HARRIEI D. MACI HERSON, I II.D	mstructor	Professor	Classification
HOWARD H. MASON, A.B., M.D	Assistant	Clinical	Diseases of Chil-
	Clinical	Professor	dren
Loro H. Mapur. Dh. D.	Professor	Professor	Education
Lois H. Meek, Ph.D	Professor	Professor	Education
WILLIAM B. MELONEY, A.B	Lecturer	Instructor	English
KATHARINE MERRITT, A.B., M.D	Instructor	Associate	Diseases of Chil-
C . D 3/5 4 3/	.		dren
SIMON R. MITCHNECK, A.M	Assistant	Instructor Instructor	
DAVID D. MOORE, A.B., M.D GEORGE NOBBE, A.M	Lecturer	Instructor	
VASIL OBRESHKOVE, Ph.D	Associate	Professor	Biology
	Professor		
MICHAEL OSNATO, M.D	Associate	Clinical	Neurology
IRVING H. PARDEE, A.B., M.D	Associate	Professor Assistant	Neurology
TRVING II. I ARDEE, M.D., M.D	Associate	Professor	rveurology
WILBUR G. PARKS, A.B	Assistant	Lecturer	Chemistry
Howard W. Potter, M.D	Clinical	Professor	Psychiatry
FLORENCE POWDERMAKER, Ph.D., M.D.	Professor	Associate	Psychiatry
I. I. RABI, Ph.D.	Lecturer	Assistant	Physics
	Beetarer	Professor	1 117 0100
DICKINSON W. RICHARDS, JR., A.M., M			
	Associate	Assistant	Medicine
HENRY A. RILEY, A.M., M.D.	Associate	Professor Professor	Neurology
	Professor	1 10103301	1.curotogy
GEROID T. ROBINSON, Ph.D	Lecturer	Assistant	History
		Professor	D
LEWIS B. ROBINSON, A.B., M.D RAYMOND R. ROGERS, A.M	Assistant	Associate	Dermatology Chemical Engi-
RAIMOND R. ROGERS, A.M	rissistant	Decturer	neering
HENRY A. RUGER, Ph.D	Assistant	Associate	Education
	Professor	Professor	
			•

Name	From	To	Subject		
A. ARTHUR SCHILLER, A.M., J.D	Lecturer	Assistant Professor	Law		
BEATRICE C. SEEGAL, A.M., M.D	Instructor		Bacteriology		
Aura E. Severinghaus, A.M	Associate	Assistant Professor	Anatomy		
PAUL B. SHELDON, A.B., M.D	Associate	Assistant Professor	Clinical Medicine		
CARL S. SHOUP, A.B	Lecturer		Business Admin- istration		
MAXIM STEINBACH, M.D	Research Assistant	Research Associate	Bacteriology		
Byron Stookey, A.M., M.D	Assistan't		Neurological Surgery		
Marjorie L. Strauss, A.B., M.D Roy E. Stryker, A.B	Instructor	Associate	Medicine Economics		
RUTH C. SULLIVAN, A.M (October 1, 1930)	Instructor	Associate	Diseases of Chil- dren		
Lois E. TeWinkel, A.M.		Lecturer	Zoölogy		
WILLIAM PAYNE THOMPSON, A.M., M.D. KENNETH B. TURNER, A.B., M.D	Assistant	Instructor Instructor	Medicine		
FRANK VERO, M.D	Assistant Assistant		Dermatology Dermatology		
HERMANN G. WENDT, A.M RANDOLPH WEST, A.M., M.D	Lecturer	Instructor Associate			
	Professor	Professor			
Mary T. Whitley, Ph.D	Professor	Associate Professor	Education		
CHANGES OF TITLE					
To Take Effect, Unless Otherwise Indicated, July 1, 1930					

10 I die Egico, e inc	33 Cinci avst	1111	touteu,	J Riy 1, 1930
Name	From			To
Elisabeth G. Brockett, A.M.	Instructor	in	Psy-	Instructor in Psychiat- ric Social Service
MEREDITH F. CAMPBELL, M.D.	Associate in of Children		seases	Instructor in Surgery
KENNETH O. CROSBY, S.T.D	Assistant of Public			Assistant Professor of Oral English
Louis B. Dotti, B.S	Research in Physiolo	Assi	istant	Assistant in Physiol-
NOEL T. DOWLING, A.M., LL.B.	Professor o	f La	w	Nash Professor of Law
CHESTER W. EMMONS, Ph.D	matology	in	Der-	Associate in Mycology
ROWLAND G. FREEMAN, JR., Ph.				
	Instructor	in	Psy-	Instructor in Neurol-

JOHN J. LAMBERT, A.M., M.D. Instructor in Psychiatry KARL N. LLEWELLYN, LL.B., J.D. Professor of Law

PHYLLIS B. McVickar, A.M. . Assistant in Bacteriology

MARGARET R. MURRAY, Ph.D. Instructor in Surgery ELIZABETH NESBITT, M.D. Instructor in Psy-

chiatry HOUSTON PETERSON, A.M. . . Instructor in Philosophy

YOUNG B. SMITH, LL.B., LL.D. Dean of the Faculty of Law and Profes-

sor of Law WIN HENRY WATTERS, M.D. Instructor in Surgery

Assistant in Psychiatry

Betts Professor of Jurisprudence Research Assistant in Bacteriology Research Assistant in Surgery Assistant in Psychiatry Lecturer in Philosophy

Dean of the Faculty of Law and Kent Professor of Law Instructor in Orthopedic Surgery

APPOINTMENTS

To Take Effect, Unless Otherwise Indicated, July 1, 1930

Name	Title
MAX ABRAMOVITZ, B.S	Assistant in Design
CARL W. ACKERMAN, B.Lit	Associate in Journalism
JEAN AGNEW, A.B	Assistant in Zoology
GRACE L. ALDRICH, B.S	
TT - TD 4 4.35	Service
HAROLD F. ALLAN, A.M ELIZABETH ARNSTEIN, M.D	Lecturer in Mathematics
ELIZABETH ARNSTEIN, M.D	Instructor in Anatomy and
EDIEDDICH E ANNACON A M	Assistant in Surgery
FRIEDRICH E. AUHAGEN, A.M	Aggoriate Professor of Demoit
GEORGE W. BACHMAN, Ph.D (January 1, 1930)	
PONALD RAMEORD M S	ology
RONALD BAMFORD, M.S. S. EUGENE BARRERA, M.D.	Instructor in Develorer
EDWIN W. BARD A M	Lecturer in Government
ERWIN W. BARD, A.M JOSEPH W. BARKER, M.S	Dean of the Faculty of Engi-
Jobbi I III Dilletok, Milo	neering
LESLIE P. BARKER, M.D	. Assistant in Dermatology
SALO BARON, Ph.D., Jur.D	. Professor of Jewish History.
(February 1, 1930)	Literature, and Institutions on
	the Miller Foundation
CHARLES O. BECKMANN, Ph.D	Instructor in Chemistry
WALTER A. BELL, M.D	Assistant in Diseases of Children
WALTER A. BELL, M.D. MAURICE A. BELSON, M.D.	Assistant in Dermatology
THEODORE M. BERNSTEIN, B.Lit	Associate in Journalism
LOWELL P. BEVERIDGE, A.M	. Assistant Professor of Music
PIERRE A. BÉZY, B.S. H. LAMBERT BIBBY, M.D.	. Assistant in Design
H. LAMBERT BIBBY, M.D	. Instructor in Diseases of Chil-
(October 1, 1930)	dren
CARL A. L. BINGER, M.D Frederick L. Bird, A.M	. Associate in Medicine
FREDERICK L. BIRD, A.M	. Lecturer in Government
FREDERICK W. BIRKMAN, M.D	Assistant in Dermatology
GRACE B. BLAUVELT, M.D	Instructor in Chamistry
LELA BOOHER, M.S	Instructor in Chemistry
WILLIAM BOYD, Ph.D.	Visiting Professor of Education
WALTER BROMBERG, M.D.	Assistant in Neurology
ALFRED B. BROWN, Ph.D.	Instructor in Mathematics
ALLAN BROWN, M.D.	. Assistant in Dermatology
ALLAN BROWN, M.D	. Instructor in Ophthalmology
LOUISE T. BROWN, M.D	. Assistant in Diseases of Children
(February 1 1020)	
NORTON S. BROWN, M.D	. Assistant in Medicine
Cotober 1, 1930)	. Assistant in Obstetrics and
(October 1, 1930)	Gynecology _
EDITH M. BUYER, M.D.	. Assistant in Psychiatry
GLADYS LYDIA CARR, M.D	. Assistant in Surgery
(October 1, 1930)	D (
WILBERT L. CARR, A.M GUILLERMO R. CESTERO, M.D	. Professor of Latin
BARREST II CALESTERO, M.D	. Instructor in Radiology
BARRETT H. CLARK	Associate in Journausin
(October 1 1020)	. Assistant in Diseases of Children
(October 1, 1930)	Assistant in Surgery
HARVEY W. COCHRAN, M.D RUTH L. CONRAD, A.M	Research Assistant in Bacteri-
(March r ross)	a la gra
KATE CONSTABLE, M.D.	. Assistant in Neurology
KATE CONSTABLE, M.D. THOMAS I. COOK, B.S. IRVING A. COWPERTHWAITE, B.S. MRS. FLORENCE CRIMMINS-STEIN, M.D.	. Instructor in Government
IRVING A. COWPERTHWAITE, B.S	. Instructor in Chemistry
MRS. FLORENCE CRIMMINS-STEIN, M.D	. Instructor in Psychiatry
Frank E. Cross, M.D	. Assistant in Dermatology

RARL N. CROWLEY, A.M. KARL N. DALLENBACH, Ph.D. Visiting Professor of Psychology HAROLD W. DARGEON, M.D. (October 1, 1930) WILLIAM DARRACII, M.D., LL.D., Sc.D. ELMER DAVIS, A.M. (January 1, 1930) RAIPH E. DEAL EDWIN M. DEERY, B.S., M.D. JANTON DE HAAS, Ph.D. EMILIO DE TORRE JANTON DE HAAS, Ph.D. LEWIS DICKAR, B.S. LEWEY, LL.D., Litt.D. JOIN DEWEY, LL.D., Litt.D. LEWIS DICKAR, B.S. LEMUEL C. DILLENBACK, A.M. AUGUST A. DI SOMMA, A.B. DAVID J. DOLAN, B.S., M.D. ASSISTANT in Chemistry ASSISTANT in Chemistry ASSISTANT in Chemistry ASSISTANT in Chemistry ASSISTANT in Psycis and Pharmacy ASSISTANT in Chemistry ASSISTANT in Psycis ASSISTANT in Chemistry ASSISTANT in Chemistry ASSISTANT in Chemistry ASSISTANT in Psycis ASSISTANT in Chemistry ASSISTANT in DEPRIA, A.B. MARCUS DUFFIELD, M.S. HELEN F. DUNBAR, Ph.D. MARCUS DUFFIELD, M.S. HELEN F. DUNBAR, Ph.D. MARCUS DUNFIELD, M.S. HELEN F. DUNBAR, Ph.D. MARCUS DUFFIELD, M.S. HELEN F. DUNBAR, Ph		mil
tion (October 1, 1930) WILLIAM DARRACII, M.D., LL.D., Sc.D. ELMER DAVIS, A.M. (January 1, 1930) RALPH E. DEAL J. M. DEERY, B.S., M.D. J. ANTON DE HAAS, Ph.D. LEWIS DICKAR, B.S. (March 1, 1930) LEWIS DICKAR, B.S. LEWIS LILLENBACK, A.M. LEWIS DICKAR, B.S. LEWIS LORDING, A.B. AUGUST A. DI SOMMA, A.B. ASSISTANT in Dermatology Jacob Dorphin, A.B. MARCUS DUFFIELD, M.S. HELDEN B. DUNN, M.D. FRED S. DUNN, M.D. FRANK L. EIDMANN, M.D. ASSISTANT in Medicine FRANK L. ELIDMANN, M.D. ASSISTANT in Diseases of Children ASSISTANT in Medicine FRANK L. ELIDMANN, M.D. ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children Crew French Professor Chemistry Assistant in Medicine FRED S. DUNN, M.D. ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children Crebruary 1, 1930) ASSISTANT in Diseases of Children Crebruary 1, 1930 AND FARAL (TO February 1, 1931) FRANK D. ELERICH, A.B., M.D. ASSISTANT in Diseases of Children Charles A. GAUTHIER, M.D. ASSISTANT in Medicine FRED W. FESSENDEN, M.S. ASSISTANT in Medicine ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Diseases of		
KARL N. DALLENBACH, Ph.D. HAROLD W. DARGEON, M.D. (October 1, 1930) WILLIAM DARRACH, M.D., LL.D., Sc.D. ELMER DAVIS, A.M. (January 1, 1930) RALPH E. DEAL DEDWIN M. DEERY, B.S., M.D. JANTON DE HAAS, Ph.D. LEDWIN M. DEERY, B.S. ASSOCIATE IN SECULDARY JOHN DEWEY, LL.D., Litt.D. Professor Emeritus of Philosophy in residence LEWIS DICKAR, B.S. LEMUEL C. DILLENBACK, A.M. BEATTY H. DIMIT, M.S. Research Assistant in Mathematics AUGUST A. DI SOMMA, A.B. DAVID J. DOLAN, B.S., M.D. JACOB DORRMAN, Ph.G., A.M. JOHN J. DROPKIN, A.B. MARCUS DUFFIELD, M.S. HELEN F. DUNBAR, Ph.D., M.D. HELEN F. DUNBAR, Ph.D., M.D. MARGABET EAGLESON, A.M. HELEN F. DUNBAR, Ph.D., M.D. MARGABET EAGLESON, A.M. MRS. BEATRICE L. EARLE, A.M. MRS. BEATRICE L. EARLE, A.M. SEATHICE L. EARLE, A.M. ASSISTANT in Diseases of Children MARY R. ELESTON, A.B., M.D. ASSISTANT in Diseases of Children CRAWFORD F. FALLEY, Ph.D. ASSISTANT in Nedicine (February 1, 1930) ANDOLD HELENBENN, M.D. ASSISTANT in Medicine (February 1, 1931) FRANK L. EIDMANN, M.D. ASSISTANT in Medicine (February 1, 1931) FRANK D. SASSISTANT in Diseases of Children CRAWFORD F. FALLEY, Ph.D. ASSISTANT in Medicine (February 1, 1931) FRANK FOOTE, A.M. WILLIAM A. GARDNER, M.D. ASSISTANT in Diseases of Children ROBERT E. FITCH, A.B. ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children ROBERT E. FITCH, A.B. ASSISTANT in Diseases of Children ROBERT E. FITCH, A.B. ASSISTANT in Diseases of Children ROBERT E. FITCH, A.B. ASSISTANT in Diseases of Children ROBERT GARST, B.Lit. ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children ROBERT GARST, B.Lit. ASSISTANT in Diseases of Children ASSISTANT in Diseas	TERESA N. CROWLEY, A.M	
HAROLD W. DARGEON, M.D. (October 1, 1930) WILLIAM DARRACH, M.D., LL.D., Sc.D. WILLIAM DARRACH, M.D., LL.D., Sc.D. ELMER DAVIS, A.M. (January 1, 1930) RALPH E. DEAL Instructor in Biology Instructor in Neurology J. ANTON DE HAAS, Ph.D. J. C. GORDON DEUTSCH, B.S. (March 1, 1930) JOIN DEWEY, LL.D., Litt.D. JOIN DEWEY, LL.D., Litt.D. LEWIS DICKAR, B.S. LEWIS DICKAR, B.S. LEWIS DICKAR, B.S. LEMUEL C. DILLENBACK, A.M. Professor of Design BEATTY H. DINIT, M.S. Research Assistant in Food Chemistry Assistant in Cermatology JACOB DORFMAN, Ph.G., A.M. JACOB DORFMAN, Ph.G., A.M. Assistant in Dermatology Assistant in Dermatology Assistant in Dermatology Assistant in Physics MARCUS DUFFIELD, M.S. HELEN F. DUNBAR, Ph.D. MARGARET ELGESON, A.M. MR. BEATRICE L. EARLE, A.M. ASSISTANT in Medicine FRANK L. EIDMANN, Mech.E. Professor of Mechanical Engineering MARY R. ELESTON, A.B., M.D. Assistant in Diseases of Children MANUEL S. ELLIS, A.B., M.D. Assistant in Medicine (February 1, 1930) DAVID L. ELLRICH, A.B., M.D. Assistant in Medicine CRAWFORD F. FAILEY, Ph.D. Assistant in Medicine CRAWFORD F. FAILEY, Ph.D. ASSISTANT in Chemistry Visiting French Professor WILLIAM A. GARDNER, M.D. Assistant in Medicine CRAWFORD F. FAILEY, Ph.D. ASSISTANT in Diseases of Children CHARLES A. GAUTHIER, M.D. ASSISTANT in Medicine ASSISTANT in Medicine CHARLES A. GAUTHIER, M.D. ASSISTANT in Medicine CHARLES A. GAUTH	The state of the s	
(October I. 1930) William Darracii, M.D., LL.D., Sc.D. Dean Emeritus of the College of Physicians and Surgeons in residence Lecturer in Journalism (January I. 1930) RALPH E. DEAL EDWIN M. DEERY, B.S., M.D. JANTON DE HAAS, Ph.D. Lecturer in Economic Geography JACK GORDON DEUTSCH, B.S. (March I. 1930) JOHN DEWEY, LL.D., Litt.D. LEWIS DICKAR, B.S. LEMUEL C. DILLENBACK, A.M. Professor of Design REATTY H. DIMIT, M.S. Research Assistant in Food Chemistry AUGUST A. DI SOMMA, A.B. ASSISTANT in Dematology JOHN DEWEY, LL.D., M.D. ASSISTANT in Physics MARCUS DUFFIELD, M.S. HELDE F. DUNBAR, Ph.D., M.D. HARDON DUFFIELD, M.S. HELDE F. DUNBAR, Ph.D., M.D. MARGARET EAGLESON, A.M. MRS. BEATRICE L. EARLE, A.M. MRS. BEATRICE L. EARLE, A.M. ASSISTANT to Diseases of Children MARY R. ELESTON, A.B., M.D. ASSISTANT in Diseases of Children CRAWFORD F. FAILEY, Ph.D. ASSISTANT in Medicine (February I. 1930) EDMOND FARAL (TO February I. 1931) CRAWFORD F. FAILEY, Ph.D. ASSISTANT in Medicine (February I. 1934) CRAWFORD F. FAILEY, Ph.D. ASSISTANT in Medicine (February I. 1931) ROBERT F. FITCH, A.M. ASSISTANT in Medicine (To February I. 1931) ROBERT F. FITCH, A.M. ASSISTANT in Medicine (To February I. 1931) ROBERT F. FITCH, A.M. ASSISTANT in Diseases of Children ASSISTANT in Medicine (To February I. 1931) ROBERT F. FITCH, A.M. ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children ASSISTANT in Medicine (To February I. 1931) ROBERT F. FITCH, A.M. ASSISTANT in Medicine (To February I. 1931) ROBERT F. FITCH, A.M. ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Diseases of Children ASSISTANT in Medicine ASSISTANT in Medicine ASSISTANT in Medicine ASSISTANT in Medicine ASS	KARL N. DALLENBACH, Ph.D	Assistant in Diseases of Children
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(January I. 1930) RALPH E. Deal. LOWIN M. DEERY, B.S., M.D. J. ANTON DE HAAS, Ph.D. Lecturer in Economic Geography EMILIO DE TORRE ASSOCIAte in Spanish Assistant in Mathematics (March I. 1930) JOHN DEWEY, LL.D., Litt.D. JOHN DEWEY, LL.D., Litt.D. LEWIS DICKAR, B.S. LEMUEL C. DILLEBACK, A.M. Professor of Design RESAUTH H. DIMIT, M.S. RESAUTH H. DIMIT, M.S. AUGUST A. DI SOMMA, A.B. ASSISTANT in Chemistry ASSISTANT in Chemistry ASSISTANT in Chemistry ASSISTANT in Permatology ASSISTANT in Permatology ASSISTANT in Permatology ASSISTANT in Physics MARCUS DUFFIELD, M.S. HELEN F. DUNDAR, Ph.D., M.D. FRED S. DUNN, M.D. MARGARET EAGLESON, A.M. MRS. BEATRICE L. EARLE, A.M. FRANK L. EIDMANN, Mech.E. Professor of Mechanical Engineering MARY R. ELESTON, A.B., M.D. ASSISTANT in Diseases of Children ASSISTANT in Medicine (February I. 1930) ASSISTANT in Medicine (February I. 1931) RICHARD K. ESSENDEN, M.S. ASSISTANT in Medicine (To February I. 1931) RICHARD K. ESSENDEN, M.S. ASSISTANT in Medicine (To February I. 1931) RICHARD K. FESSENDEN, M.S. ASSISTANT in Medicine (To February I. 1931) RICHARD K. FESSENDEN, M.S. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine ASSISTANT in Medicine (To February I. 1931) RICHARD FITCH, A.B. ASSISTANT in Medicine A		in residence
RALPH E. DEAL EDWIN M. DEERY, B.S., M.D. J. ANTON DE HAAS, Ph.D. EMILIO DE TORRE JACK GORDON DEUTSCH, B.S. (MARCH I, 1930) JOHN DEWEY, LL.D., Litt.D. LEWIS DICKAR, B.S. LEMUEL C. DILLENBACK, A.M. BEATTY H. DIMIT, M.S. Assistant in Mathematics Chemistry Associate in Spanish Assistant in Pathology Professor Emeritus of Philosophy in residence Instructor in Pathology Professor of Design Reatry H. DIMIT, M.S. Research Assistant in Food Chemistry Assistant in Dermatology Assistant in Dermatology Assistant in Dermatology Assistant in Physics MARCUS DUFFIELD, M.S. MARCUS DUFFIELD, M.S. MARCUS DUFFIELD, M.S. MARCUS DUFFIELD, M.D. FRED S. DUNN, M.D. Instructor in Surgery MARGARET EAGLESON, A.M. Lecturer in Economics Assistant to the matics Professor of Philosophy Assistant in Dermatology Assistant in Physics Marcus Duffield, M.S. Assistant in Dermatology Assistant to the Dean of Barnard College in charge of Outside Contacts Professor of Mechanical Engineering MARY R. ELESTON, A.B., M.D. Assistant in Medicine (February 1, 1930) ASSISTANT in Medicine (February 1, 1930) ASSISTANT in Medicine (February 1, 1931) RICHARD W. FESSENDEN, M.S. HENRY FINDLAY, A.B., M.D. Assistant in Neurology ANDREW G. FINLAY, A.B., M.D. Assistant in Surgery Visiting French Professor Marcus Development of the Leaveston of Law and Assistant in Medicine Assistant in Discases of Children WILLIAM A. GARDNER, M.D. Assistant in Discases of Children Assistant in Deurology Assistant in Oberal Professor Charles A. Gauthier, M.D. Assistant in Discases of Children Assistant to the Dean of the La	ELMER DAVIS, A.M	Lecturer in Journalism
EDWIN M. DEERY, B.S., M.D. J. ANTON DE HAAS, Ph.D. J. ANTON DE HAAS, Ph.D. Lecturer in Economic Geography EMILIO DE TORRE ASSICIATE IN SPANISH JACK GORDON DEUTSCH, B.S. (March 1, 1930) JOHN DEWEY, LL.D., Litt.D. JOHN DEWEY, LL.D., Litt.D. LEWIS DICKAR, B.S. LEWIS DICKAR, B.S. LEMUEL C. DILLENBACK, A.M. BEATTY H. DIMIT, M.S. RESEARCH ASSISTANT in Pathology LOVER LAW, L. D. JACOB DORFMAN, Ph.G. A.M. JACOB DORFMAN, Ph.G. A.M. JACOB DORFMAN, Ph.G. A.M. ASSISTANT in Dermatology JOHN J. DROPKIN, A.B. MARCUS DUFFIELD, M.S. HELEN F. DUNBAR, Ph.D. MARGARET EAGLESON, A.M. LECTURE IN ECONOMICS MRS. BEATRICE L. EARLE, A.M. ASSISTANT in Medicine FRANK L. EIDMANN, Mech.E. Professor of Mechanical Engineering MARY R. ELESTON, A.B., M.D. ASSISTANT in Diseases of Children MARY R. ELESTON, A.B., M.D. ASSISTANT in Medicine (February 1, 1930) DAVID L. ELLRICH, A.B., M.D. ASSISTANT in Medicine (To February 1, 1931) RICHARD W. FESSENDEN, M.S. ASSISTANT in Medicine CRAWFORD F. FAILEY, Ph.D. ASSISTANT in Diseases of Children CTO February 1, 1931) RICHARD W. FESSENDEN, M.S. ASSISTANT in Neurology ANDREW G. FINLAY, A.B., M.D. ASSISTANT in Urology ANDREW G. FINLAY, A.B., M.D. ASSISTANT in Diseases of Children ASSISTANT in Neurology ANDREW G. FINLAY, A.B., M.D. ASSISTANT in Diseases of Children ASSISTANT in Neurology ASSISTANT in Diseases of Children ASSISTANT in Diseases of Children ASSISTANT in Neurology ASSISTANT in Neurology ASSISTANT in Neurology ASSISTANT in Diseases of Children ASSISTANT in Neurology ASSISTANT in Neurology	(January 1, 1930)	Total Distance
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Lewis Dickar, B.S. Lemuel C. Dillenback, A.M. Professor of Design Beatity H. Dimit, M.S. Research Assistant in Food Chemistry August A. Di Somma, A.B. David J. Dolan, B.S., M.D. Jacob Dorfman, Ph.G., A.M. Jond J. Doperin, A.B. Assistant in Chemistry Jacob Dorfman, Ph.G., A.M. John J. Dropkin, A.B. Assistant in Professor of Pharmacy John J. Dropkin, A.B. Assistant in Physics Marcus Duffield, M.S. Associate in Journalism Helen F. Dunbar, Ph.D., M.D. Instructor in Surgery Lecturer in Economics Mrs. Beatrice L. Earle, A.M. Assistant to the Dean of Barnard College in charge of Outside Contacts Professor of Mechanical Engineering Mary R. Eleston, A.B., M.D. Assistant in Diseases of Children Assistant in Medicine (February 1, 1930) David L. Ellrich, A.B., M.D. Assistant in Medicine (February I, 1931) Richard W. Fessenden, M.S. Assistant in Neurology Assistant in Medicine Crawford F. Failey, Ph.D. Assistant in Medicine Chemistry Visiting French Professor (To February 1, 1931) Richard W. Fessenden, M.S. Assistant in Chemistry Henry Findlay, A.B., M.D. Assistant in Surgery Richard Fitch, A.B. Assistant in Surgery Richard Fitch, A.B. Assistant in Paychology Research Assistant in Medicine Chemistry (1951) Research Assistant in Metal- lurgy William A. Gardner, M.D. Assistant in Medicine Charles A. Gauthier, M.D. Assistant in Diseases of Children Charles A. Gauthier, M.D. Assistant in Diseases of Children Assistant in Diseases of Children Charles A. Gauthier, M.D. Assistant in Neurology Assistant to the Dean of the	JOHN DEWEY, LL.D., Litt.D	
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FRED S. DUNN, M.D. MARGARET EAGLESON, A.M. MRS. BEATRICE L. EARLE, A.M. FRANK L. EIDMANN, Mech.E. FRANK L. EIDMANN, Mech.E. Professor of Mechanical Engineering MARY R. ELESTON, A.B., M.D. SAMUEL S. ELLIS, A.B., M.D. (February 1, 1930) DAVID L. ELLIRCH, A.B., M.D. CRAWFORD F. FAILEY, Ph.D. Assistant in Medicine (To February 1, 1931) RICHARD W. FESSENDEN, M.S. HENRY FINDLAY, A.B., M.D. ASSISTANT in Chemistry Visiting French Professor (To February 1, 1931) RICHARD W. FESSENDEN, M.S. ASSISTANT in Urology ANDREW G. FINLAY, A.B., M.D. ASSISTANT in Surgery ASSISTANT in Urology ASSISTANT in Surgery ASSISTANT in Surgery ASSISTANT in Surgery ASSISTANT in Surgery RICHARD FITCH, A.B. ROBERT E. FITCH, A.M. (To February 1, 1931) FRANK FOOTE, A.M. WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. ASSISTANT in Medicine Research Assistant in Metallurgy WILLIAM A. GARDNER, M.D. ASSISTANT in Medicine ASSOCIATE in Philosophy CHARLES A. GAUTHIER, M.D. ASSISTANT in Diseases of Children ASSISTANT in Neurology ASSISTANT to the Dean of the Law School	MARCUS DUFFIELD, M.S	Assistant in Medicine
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RICHARD W. FESSENDEN, M.S. HENRY FINDLAY, A.B., M.D. Assistant in Chemistry HENRY FINDLAY, A.B., M.D. Assistant in Urology Andrew G. Finlay, A.B. ROBert E. Fitch, A.M. (To February 1, 1931) FRANK FOOTE, A.M. WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. Assistant in Medicine Associate in Journalism SAMUEL GARTNER, M.D. Assistant in Diseases of Children CHARLES A. GAUTHIER, M.D. Assistant in Neurology JAMES P. GIFFORD, A.B., LL.B. Assistant to the Dean of the Law School	(To February I, 1031)	
HENRY FINDLAY, A.B., M.D. ANDREW G. FINLAY, A.B., M.D. ROBERT E. FITCH, A.M. (TO February I, 1931) FRANK FOOTE, A.M. WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. CHARLES A. GAUTHIER, M.D. JAMES P. GIFFORD, A.B., LL.B. Assistant in Urology Assistant in Psychology Lecturer in Philosophy Research Assistant in Metallurgy Assistant in Medicine Associate in Journalism Assistant in Diseases of Children Assistant in Neurology Assistant in Neurology Assistant to the Dean of the Law School	RICHARD W. FESSENDEN, M.S	Assistant in Chemistry
ANDREW G. FINLAY, A.B., M.D. Assistant in Surgery RICHARD FITCH, A.B. ROBERT E. FITCH, A.M. (To February 1, 1931) FRANK FOOTE, A.M. WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. CHARLES A. GAUTHIER, M.D. JAMES P. GIFFORD, A.B., LL.B. Assistant in Surgery Assistant in Psychology Research Assistant in Metallurgy Assistant in Medicine Associate in Journalism Assistant in Diseases of Children Assistant in Neurology Assistant in Neurology Assistant to the Dean of the Law School	HENRY FINDLAY, A.B., M.D	Assistant in Urology
ROBERT E. FITCH, A.M. (TO February 1, 1931) FRANK FOOTE, A.M. WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. CHARLES A. GAUTHIER, M.D. JAMES P. GIFFORD, A.B., LL.B. Assistant in Neurology Assistant in Neurology Assistant to the Dean of the Law School	ANDREW G. FINLAY, A.B., M.D	Assistant in Surgery
(To February 1, 1931) FRANK FOOTE, A.M. WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. CHARLES A. GAUTHIER, M.D. JAMES P. GIFFORD, A.B., LL.B. ASSISTANT in Medicine Assistant in Diseases of Children Assistant in Neurology Assistant to Neurology Assistant to the Dean of the Law School		Assistant in Psychology
FRANK FOOTE, A.M. Research Assistant in Metallurgy WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. CHARLES A. GAUTHIER, M.D. JAMES P. GIFFORD, A.B., LL.B. Assistant in Diseases of Children Assistant in Neurology Assistant Professor of Law and Assistant to the Dean of the Law School		Lecturer in Filliosophy
WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. CHARLES A. GAUTHIER, M.D. JAMES P. GIFFORD, A.B., LL.B. Assistant in Neurology Assistant in Neurology Assistant to the Dean of the Law School	FRANK FOOTE, A.M.	Research Assistant in Metal-
WILLIAM A. GARDNER, M.D. ROBERT GARST, B.Lit. SAMUEL GARTNER, M.D. CHARLES A. GAUTHIER, M.D. JAMES P. GIFFORD, A.B., LL.B. Assistant in Neurology Assistant to the Dean of the Law School	TRAINE LOOID, TRAINE 1 7	lurgy
ROBERT GARST, B.Lit	WILLIAM A. GARDNER, M.D	Assistant in Medicine
CHARLES A. GAUTHIER, M.D. Assistant in Neurology JAMES P. GIFFORD, A.B., LL.B. Assistant Professor of Law and Assistant to the Dean of the Law School	ROBERT GARST, B.Lit	Associate in Journalism
CHARLES A. GAUTHIER, M.D	SAMUEL GARTNER, M.D	
JAMES P. GIFFORD, A.B., LL.B Assistant Professor of Law and Assistant to the Dean of the Law School	CHARLES A CANTILLED M.D.	
Assistant to the Dean of the Law School		Assistant Professor of Law and
Law School	JAMES I. GIFFORD, A.D., EDID	Assistant to the Dean of the
ALEXANDER CODE A M Lecturer in German		Law School
TIBERANDER GODE, A.M Dectain in German		Lecturer in German
WILLIAM H. GODSICK, M.D Assistant in Obstetrics and	WILLIAM H. GODSICK, M.D	
Gynecology		Gynecology

Name	Title
AMERICA GONZALEZ, A.B	. Lecturer in Spanish
(To February 1, 1931) CLARISSA L. GOOLD, A.B., M.S.	. Instructor in Library Service
SAMUEL GRAFF, B.S.	. Instructor in Library Service . Assistant in Obstetrics and Gynecology
LETITIA J. H. GRIERSON, M.A	. Instructor in English
ALBERT N. GUTHRIE, Ph.D James Gutmann, A.M	. Instructor in Physics . Lecturer in Philosophy
Moses Hadas, A.M	. Instructor in Greek and Latin . Professor Emeritus of Choral
Moses Hadas, A.M	. Professor Emeritus of Choral and Church Music
ROBERT A. HARPER, Ph.D., Sc.D	. Professor Emeritus of Botany
WILLIAM J. HEEKS, M.D (November 1, 1930)	. Assistant in Surgery
J. FUHRMAN HEINRICH, M.D	. Assistant in Medicine
(October 1, 1930) JAMES S. HIBBARD, M.D.	. Assistant in Surgery
JAMES S. HIBBARD, M.D	. Assistant in Obstetrics and
PHILIP T. HODGSKIN, M.D	Gynecology . Assistant in Diseases of Chil-
(January 1, 1930) GLENN W. HOWARD, A.M	dren
M. KING HUBBERT, A.M.	. Instructor in Geophysics
M. KING HUBBERT, A.M	. Visiting Lecturer on Chinese History
MAURICE HUSIK, A.B., M.D	. Assistant in Dermatology
HERBERT F. JACKSON, M.D (October 1, 1930)	. Instructor in Diseases of Chil-
OLIVER B. JAMES, A.B., LL.B	. Associate in Law
ARTHUR T. JERSILD, Ph.D	tion tion
GEORGE L. JOHNSON, JR., A.B., M.D	. Assistant in Diseases of Children
(December 1, 1929) HELEN JOHNSTON, B.S	. Assistant in Chemistry
SILAS PAUL JONES, A.M	. Instructor in French
GEORGE B. KARELITZ, Mech.E	. Associate Professor of Mechan-
MARIE KARELITZ, M.D.	ical Engineering . Assistant in Dermatology
SIEGFRIED E. KATZ, M.D	. Instructor in Psychiatry
(October 1, 1930) EDWARD G. KELLEY, M.S	. Assistant in Biological Chem-
	istry
SIDNEY J. KLEIN, B.S	. Instructor in Medicine
CORNELIUS J. KRAISSL, M.D	Assistant in Surgery Instructor in Neurology
(October 1, 1930)	
HENRY R. KUTIL, M.D (October 1, 1930)	dren dren Diseases of Chil-
CARNEY LANDIS, Ph.D.	Instructor in Psychiatry
LEONIDAS LANTZOUNIS, M.D.	. Instructor in Orthopedic Surgery
CHARLOTTE LEAVITT	Assistant in Anthropology Instructor in Book Production
MIAORICE DENZ, MI.D.	
(January 1, 1930) STEN BODVAR LILJEGREN, Ph.D	Visiting Professor of Compara-
	tive Literature
JULIUS K. LITTMAN, M.D	Instructor in Dentistry Instructor in Anatomy
LILLIAN H. LOCKE, A.M	Assistant Professor of Household Arts
GONZALEZ LODGE, Ph.D., LL.D., Litt.D.	Emeritus Professor of Latin
(February 1, 1930)	and Greek

Name	Title
ALEXANDER V. LYMAN, M.D	
(October 1, 1930) Mary Ely Lyman, Ph.D	dren . Lecturer in Religion
WILLIAM I. MCCARTHY, A.B., M.D	. Assistant in Neurology
WILLIAM W. McClelland, A.M WILLIAM F. McDonald, A.M	. Visiting Professor of Education
WILLIAM F. McDonald, A.M	. Lecturer in Philosophy . Lecturer in Physical Education
LOYE A. MCGEE, B.S	. Assistant in Obstetrics and
(October 1, 1930)	Gynecology
MADGE C. L. McGuiness, M.D	. Assistant in Surgery
(October 1, 1930) RUSTIN McINTOSH, A.B., M.D	. Professor of Diseases of Children
HUGH S. McKeown, M.D	. Instructor in Ophthalmology
	and Lecturer in Optometry
IRVILLE H. MACKINNON, M.D (October 1, 1930)	. Instructor in Psychiatry
JOHN H. McLean, A.M	. Lecturer in Greek and Latin
JOHN H. MCLEAN, A.M. JOHN P. MACNIE, A.B., M.D.	. Instructor in Ophthalmology
CHARLES W. McNitt, A.B., M.D	. Assistant in Dermatology . Curator in Geology
DELIA W. MARBLE	Instructor in English
CHARLES A. MARTIN, B.S	. Professor of Fine Arts
WILBUR T. MEEK, A.B	. Lecturer in Economics . Professor of French
(From February 1, 1930)	. I folessor of Prefich
ARTHUR E. O. MENZEL, Ph.D	. Instructor in Biological Chemistry
ELMER D. MERRILL, M.S	. Professor of Botany
MONROE A. MEYER, M.D (October 1, 1930)	. Associate in Psychiatry
GABRIELA MISTRAL	. Visiting Lecturer in Spanish
(To February 1, 1931)	
RAFAEL R. MOLINA, M.D	. Instructor in Parasitology
Manuel F. Moose, B.S.	. Assistant in Chemistry
CHARLES R. MOREY, A.M	. Visiting Lecturer in Fine Arts
LINDA H. MORLEY	tion
CHARLES H. MUELLER	. Lecturer in History
GERTRUDE E. MUELLER, A.B	. Assistant in Neurology
CHARLOTTE MUNN, M.D JEANNETT MUNRO, A.B., M.D	. Assistant in Diseases of Children
(February 1, 1930) MARGARET R. MURRAY, Ph.D	Instructor in Curgory
(January 1, 1930)	. Histrictor in Surgery
JOSEPH NACK, M.D	. Assistant in Obstetrics and
Warrant Managers A.B. M.D.	Gynecology
WILLIAM NEEDLES, A.B., M.D PEGGY G. NEWBURGER, A.M	. Assistant in Neurology . Assistant in Pathology
Albert Jay Nock	, Visiting Professor of American
I II N A M	History and Politics . Assistant in Neurology
JOHN H. NOLAN, A.M JOHN K. NORTON, Ph.D	. Visiting Professor of Education
AUSTIN J. O'LEARY, M.S	. Assistant in Physics
Austin J. O'Leary, M.S	. Instructor in Physiology
FLORENCE ORAM, A.M	. Assistant in Bacteriology . Professor of Neurology and
	Neuro-Pathology
HERMAN F. OTTE, A.M	raphy
SARA F. PASSMORE, M.S	. Assistant in Botany
CLEMENTE PEREDA, JR., A.M	Instructor in French
JOSEPH L. PERRIER, Ph.D J. KIMBARK PETERSON, A.B	. Assistant in Mathematics

Name	Title
Elfrieda E. Pope, A.B	. Lecturer in German
RUSSELL POTTER, Ph.D	. Associate Director of University
	Extension in charge of the
n	Institute of Arts and Sciences
EILEEN POWER	. Visiting Lecturer in History
(February 1, 1930)	. Director of Casa Italiana
GIUSEPPE PREZZOLINI	. Law Librarian
HERBERT E. PUGSLEY, M.D.	. Assistant in Diseases of Children
(December 1, 1929)	
MARGARET E. RICH, A.B	. Lecturer in Social Science
EDWARD A. RICHARDS, A.M	. Associate Director of Univer-
(October 1, 1930)	sity Extension
OTTO C. ROEHLING, B.S	. Assistant in Chemistry
RICHARD R. ROEHM, A.M	. Research Assistant in Food Chemistry
THEODOR ROSEBURY, D.D.S	. Instructor in Bacteriology
(February 1, 1930)	. Instructor in Bacteriology
LESTER R. SAILER, E.E	. Instructor in Electrical Engi-
	neering
RALPH V. ST. JOHN, M.D BENJAMIN SALZER, M.D	. Assistant in Urology
BENJAMIN SALZER, M.D	. Instructor in Neurology
WALTER B. SANDERS, M.Arch	. Instructor in Design
NATHAN SAVITSKY, M.D	. Instructor in Neurology
WILLIAM SCHICK, M.D	. Assistant in Neurology . Professor of Zoölogy
Franz Schrader, Ph.D	. Assistant in Psychology
NEVA SERVICE, A.B.	. Lecturer in Physical Education
(To February 1, 1931)	. Decenier in Thysical Education
GEORGENE H. SEWARD, Ph.D	. Instructor in Psychology
JOHN P. SEWARD, A.M	. Instructor in Psychology
EUGENE J. SHEFFER, A.M	. Assistant in French
SAMUEL A. SIDAT-SINGH, B.S., M.D	. Assistant in Medicine
(October 1, 1929)	T
NATHANIEL E. SILVERMAN, M.D	. Instructor in Neurology
Edwin Singer, M.D	. Instructor in Anatomy . Assistant in Physics
GILBERT P. SMITH, D.D.S.	. Instructor in Dentistry
MILTON M. SMITH, Ph.D.	Assistant Professor of Speech
THOMAS L. SMITH	. Assistant in Zoölogy
WILLIE WHITE SMITH, A.M	. Research Assistant in Physiol-
· ·	ogy
	. Assistant in Surgery
(October 1, 1930)	T
ARSHAG G. SOLAKIAN, C.E	. Lecturer in Mechanical Engi-
W. annu M. Cappage Dh. D.	neering
WARREN M. SPERRY, Ph.D	Chemistry
(January 1, 1930) CARGILL SPRIETSMA, D. ès L	. Instructor in French
MARGARET STANLEY-BROWN, A.B., M.D.	Instructor in Surgery
(January 1, 1030)	,,
(January 1, 1930) ALBERT M. STEVENS, M.D	. Associate in Diseases of Children
(October 1, 1930)	
EDWARD STINSON, M.D	. Assistant in Neurology
FLORENCE B. STRATEMEYER, A.M	. Assistant Professor of Educa-
Day E Connun A M	tion
ROY F. STREET, A.M FORTUNAT STROWSKI, D. ès L	. Instructor in Psychometrics . Visiting French Professor
PAUL C SWENSON R.S. M.D.	. Instructor in Medicine
PAUL C. SWENSON, B.S., M.D CARL B. SWISHER, Ph.D	. Instructor in Government
NANCY THOMAS, A.B.	. Assistant in Geology
	. Assistant in Zoölogy
IRVING A. TITTLER, B.S EDWARD W. TOEPFER, M.S	. Research Assistant in Food
	Chemistry

Name				Title
STERLING H. TRACY, A.M				Lecturer in History
PHILIP I. TRENTZSCH. M.D.				Associate in Neurology
ROBERT VALEUR, A.M.				Instructor in Economics
NEIL C. VAN DEUSEN, A.M.				Instructor in Philosophy
JOSEPH R. VICTOR, B.S			٠	Instructor in Pathology
(September 1, 1030)				
GUSTAV M. WATKINS, A.M				Assistant in Botany
BRUCE WEBSTER, M.D			٠	Instructor in Medicine
(September 15, 1930)				Assistant Duckson of Discours
ALEXANDER A. WEECH, A.B., M.D.		۰	•	of Children
n n m				
PAUL D. WEED, JR., B.S	٠			Assistant in Mourology
Louis Wender, M.D				Assistant in Hedrology
KENNETH WHEELER, B.S., M.D		٠	•	Assistant in Orology
WILLIAM E. WHITE, A.M		٠	•	Assistant in Discosos of Chil-
	٠		•	dren
(February 1, 1930)				
EDITH L. WILE, M.S FREDERICK H. WILKE, M.D	•	•	•	Assistant in Diseases of Chil-
	•	•	•	dren
(October 1, 1930) Benjamin G. Wilkes, A.M				
JOHN D. WILLARD, A.B	•	•	٠	Visiting Professor of Education
HAROLD WILLSON	•	•		Instructor in American History
HAROLD WILSON		٠		and Politics
CORA S. WINKIN, Ph.D				
(January 1, 1930)	•	٠		11100140001 111 1 1-7 0-0-0 87
PAUL J. WITTE, A.B				Assistant in Chemistry
ABNER WOLF, A.B., M.D				Instructor in Pathology
ABNER WOLF, H.D., M.D.				

Leaves of Absence

For the Whole or Part of the Academic Year 1929–1930 Were Granted to the Following Officers				
Name	Title			
ELIZABETH F. BAKER, Ph.D	Assistant Professor of Economics			
Anna W. Ballard, A.M Frederick Barry, Ph.D	Associate Professor of the His-			
JACOB J. BEAVER, Ph.D	Assistant Professor of Chemis-			
ALICE E. BIVINS, B.S	try Assistant Professor of Music Education			
WILLIAM A. BORING, Litt.D				
STANLEY F. BROWN, A.M	Architecture			
WENDELL T. BUSH. Ph.D.	Professor of Philosophy			
GARY N. CALKINS, Ph.D., Sc.D GEORGE F. CANFIELD, LL.B	Dwight Professor of Law			
JOSEPH P. CHAMBERLAIN, Ph.D., LL.D NORVAL L. CHURCH, B.M	Assistant Professor of Music			
George J. Cox, A.R.C.A	Education Professor of Fine Arts			
DONALD H. DAVENPORT, Ph.D	tics			
Fannie W. Dunn, Ph.D	tion			
EDWARD M. EARLE, Ph.D EDWARD S. ELLIOTT, B.S., M.D	Associate Professor of History Professor of Physical Education and Director of the Gymnasium			
EARL T. ENGLE, Ph.D				

Name	Title
JOHN ERSKINE, Ph.D., LL.D	Professor of English
THOMAS S. FISKE, Ph.D	Professor of English Professor of Mathematics
Francis R. Flournoy, Ph.D	Associate Professor of History
GRACE S. FORBES, A.M	Instructor in Zoölogy
J. Montgomery Gambrill, A.M	Professor of History
GEORGINA S. GATES, Ph.D	Assistant Professor of Psy- chology
H. RAWLE GEYELIN, A.B., M.D	Assistant Clinical Professor of Medicine
VIRGINIA C. GILDERSLEEVE, Ph.D., LL.D.	Professor of English and Dean of Barnard College
HAROLD H. GILE, Litt.B., M.D	Associate in Urology
	Instructor in German
WILLIAM K. GREGORY, Ph.D	Professor of Vertebrate Paleon-
	tology
ROBERT M. HAIG, Ph.D.	tration
	Associate Professor of English
	Instructor in Physical Educa-
	Professor of History
Frederick W. J. Heuser, A.M	Associate Professor of Germanic Languages and Literatures and
	Director of the Deutsches Haus
ARTHUR W. HIXSON, Ph.D	Professor of Chemical Engineer-
	ing
HUGER W. JERVEY, LL.B., D.C.L	. Professor of Law
PHILIP C. JESSUP, LL.B	. Assistant Professor of Inter- national Law
ERIC R. JETTE, Ph.D	. Associate Professor of Metal-
Lucing W. Jonesia M.D.	lurgy
JAMES W. JOBLING, M.D	Professor of Physiography
HAROLD B. KEYES, M.D.	Assistant to the University Medical Officer
WILLIAM H. KILPATRICK, Ph.D. Litt.D	Professor of Education
GEORGE H. KIRBY, B.S., M.D.	Professor of Psychiatry
WILLIAM W. LAWRENCE, Ph.D	Professor of English
Charles C. Lieb, A.B., M.D	. Hosack Professor of Pharma-
G. I DID II D	cology
GONZALEZ LODGE, Ph.D., LL.D	Professor of Latin and Greek
CHARLES E. LUCKE, Ph.D., Sc.D	Stevens Professor of Mechanical Engineering
WILLIAM A. McCall, Ph.D	Professor of Education
ROSWELL C. McCrea, Ph.D., LL.D	Hepburn Professor of Econom-
	ics
J. RALPH McGaughy, Ph.D James H. McGregor, Ph.D	Professor of Education
JAMES H. McGregor, Ph.D.	Professor of Zoölogy
FRANK G. MOORE, Ph.D., L.H.D.	Professor of Latin Nash Professor of Law
	Associate Professor of Mathe-
JOHN A. NORTHCOTT, A.M	matics and Associate Director
	of University Extension
THOMAS P. PEARDON, A.M.	Instructor in History
SAMUEL R. POWERS, Ph.D	Professor of Matural Sciences
IOUN DANKE BY PRINCE Ph D	Professor of Slavonic Languages
MENRY C. RAVEN	Lecturer in Zoölogy
PETER M PICCIO A M	Professor of Chemistry Assistant Professor of Italian
MARIE REIMER, Ph.D. PETER M. RICCIO, A.M. ERNEST L. SCOTT, Ph.D.	Associate Professor of Phy-
Daniel D. Georgianis.	siology
MARY M. SEALS	. Instructor in English
	Seth Low Professor of History
James T. Shotwell, Ph.D., LL.D	Professor of History

Name	Title
ALEXANDER G. H. SPIERS, Ph.D ISABEL M. STEWART, A.M	Associate Professor of French Professor of Nursing Education
SARAH M. STURTEVANT, A.M	Associate Professor of Educa-
EDWARD L. THORNDIKE, Ph.D., LL.D.	Professor of Education
Samuel A. Tucker, Ph.B	Assistant Professor of Electro- Chemistry
LEVERING TYSON, A.M	Associate Director of University Extension
MAY B. VAN ARSDALE, B.S	Professor of Household Arts
THURMAN W. VAN METRE, Ph.D	
WILLIAM C. VON GLAHN, B.S., M.D.	Associate Professor of Pathology
AGNES R. WAYMAN, A.B	Associate Professor of Physical Education
ALLEN O. WHIPPLE, M.D., Sc.D	Professor of Surgery
Douglas M. Whitaker, Ph.D	Assistant Professor of Zoölogy
ALBERT P. WILLS, Ph.D	Professor of Mathematical Physics
HELEN T. WOOLLEY, Ph.D., LL.D	Director of the Institute of Child Welfare Research and Professor of Education

REPRESENTATIVES OF THE UNIVERSITY DURING 1929-1930

At the Installations

- Of Arlo Ayres Brown as President of Drew University, Madison, N. J. (October 17, 1929): Chaplain RAYMOND C. KNOX.
- Of Clarence Augustus Barbour as President of Brown University, Providence, R. I. (October 18, 1929): Professor Elijah W. Bagster-Collins.
- Of Robert M. Hutchins as President of the University of Chicago, Chicago, Ill. (November 19, 1929): Professor Karl N. Llewellyn.
- Of Albert George Parker, Jr., as President of Hanover College, Hanover, Ind. (November 27, 1929): ARTHUR T. McCORMACK, M.D., '96.
- Of Clarence Moore Dannelly as President of Kentucky Wesleyan College, Winchester, Ky. (January 3, 1930): Charles Miles McKinlay, A.B., '07, M.D., '11.
- Of Edward Wilson Wallace as President of Victoria University, Toronto, Ontario, Canada (January 31, 1930): George C. Atkins, A.B., '02.
- Of William Elgin Wickenden as President of the Case School of Applied Science, Cleveland, Ohio (April 11, 1930): THOMAS F. GITHENS, Mech.E. and A.M., '13.
- Of Homer LeRoy Shantz as President of the University of Arizona, Tucson, Ariz. (April 24, 1930): ARTHUR H. OTIS, A.B., '08.
- Of Herman G. James as President of the University of South Dakota, Vermillion, S. D. (May 3, 1930): EDWIN BLANCHARD WOODRUFF, A.B., '96.
- Of Katharine Blunt as President of Connecticut College for Women, New London, Conn. (May 16, 1930): Professor Florence del. Lowther.
- Of Walter Lee Lingle as President of Davidson College, Davidson, N. C. (June 3, 1930): ROBERT LEROY MCMILLAN, LL.B., '17.
- Of Karl Taylor Compton as President of Massachusetts Institute of Technology, Cambridge, Mass. (June 6, 1930): Dean George B. Pegram, Professor Daniel D. Jackson.

At the Anniversary Celebrations

- Of the Centenary of Royal Technical College, Copenhagen, Denmark (August 30, 1929): Professor ROBERT H. FIFE.
- Of the Centenary of the South African College, Cape Town, South Africa (October 1 to 5, 1929): RALPH MARTIN, E.M., '05.
- Of the Centennial of Illinois College, Jacksonville, Ill. (October 12 to 15, 1929): John McGown Stevenson, A.M., '15.
- Of the Seventy-fifth Anniversary of Wofford College, Spartanburg, S. C. (October 18 and 19, 1929): Benjamin Broadus Steedly, M.D., 'oi.
- Of the Bicentennial of the University of Havana, Havana, Cuba (February 15 to 25, 1930): Professors Edwin R. A. Seligman and Philip C. Jessup.
- Of the One Hundred and Fiftieth Anniversary of the Founding of Transylvania College, Lexington, Ky. (June 1 to 4, 1930): CHARLES MILES MCKINLAY, A.B., '07, M.D., '11.
- Of the Semicentennial of the University of Southern California, Los Angeles, Calif. (June 4, 5, and 6, 1930): JOHN BOYCE SMITH, A.B., '01, LL.B., '04.

Miscellaneous

- At the Fifteenth International Geological Congress, Pretoria, South Africa (July 29 to August 12, 1929): Professor Charles P. Berkey.
- At the Convention of the American Pharmaceutical Association, Rapid City, S. D. (August 26 to 31, 1929): Dean Henry H. Rusby, Professor Henry V. Arny.
- At the World Engineering Congress, Tokio, Japan (September, 1929): WILLIAM Y. WESTERVELT, E.M., '94.
- At the International Congress of Accountants, New York, N. Y. (September, 1929): Professors Robert H. Montgomery, Roy B. Kester, Thomas W. Byrnes, James L. Dohr.
- At the Opening of the Chemical Laboratory, Princeton University, and Conference on Catalysis, Princeton, N. J. (September 26, 27, and 28, 1929): Professor J. LIVINGSTON R. MORGAN.
- At the Dedication of the Wilmer Ophthalmological Institute at Johns Hopkins University, Baltimore, Md. (October 15 and 16, 1929): Dr. WILLIAM H. McCastline, Professor James P. C. Southall.
- At the Sixty-fifth Convocation of the University of the State of New York, Albany, N. Y. (October 17, 1929): Professors Charles C. Williamson, Rexford Guy Tugwell, Adam Leroy Jones.
- At the Dedication of the Medical School Buildings of the University of Virginia, Charlottesville, Va. (October 22, 1929): Dr. Beverly C. Smith.
- At the Dedication of the Moore Laboratories of Amherst College, Amherst, Mass. (October 25, 1929): Professor Walter H. Eddy.
- At the Meeting of the Association of American Universities, Columbia University, New York, N. Y. (November 7 to 9, 1929): Deans Herbert E. Hawkes, George B. Pegram, William F. Russell, Howard Lee Mc-Bain; Professors Charles P. Berkey, Dino Bigongiari, Marston T. Bogert, Gary N. Calkins, John J. Coss, Robert Herndon Fife, Robert A. Harper, Carlton J. H. Hayes, Adam Leroy Jones, Roswell C. McCrea, Robert M. MacIver, Albert T. Poffenberger, Lindsay Rogers, Henry R. Seager, Edwin R. A. Seligman, Henry C. Sherman,

- ASHLEY H. THORNDIKE, FREDERICK J. E. WOODBRIDGE, ERNEST H. WRIGHT, Mr. PHILIP M. HAYDEN.
- At the Dedication of the Biology Building, St. Xavier College, Cincinnati, Ohio (November 10, 1929): Province M. Pogue, LL.B., '91.
- At the American Mining Congress, Washington, D. C. (December 4 to 7, 1929): Professor Thomas T. Read.
- At the Dedication of the John Markle Mining Engineering Hall at Lafayette College, Easton, Pa. (December 6, 1929): Professor THOMAS T. READ.
- At the Middle Atlantic States Collegiate Athletic Conference, Philadelphia, Pa. (December 21, 1929): Perry L. Davis, B.S., '28, A.M., '29.
- At the Twenty-fourth Annual Convention of the National Collegiate Athletic Association, New York, N. Y. (January 1, 1930): Professor Edward S. Elliott; Rudolph L. von Bernuth, A.B., '04, A.M., '05, LL.B., '06; Reynolds Benson, Met.E., '16; Secretary Frank D. Fackenthal.
- At the Annual Meeting of the Association of American Colleges, Washington, D. C. (January 14, 1930): Dean Herbert E. Hawkes, Professor Adam Leroy Jones.
- At the Meeting of the American Association of Dental Schools, Toronto, Canada (March 23 to 26, 1930): Dean Alfred Owre.
- At the Dedication of New Buildings at the University of California, Los Angeles, Cal. (March 27 and 28, 1930): Seeley G. Mudd, M.D.
- At the National Physical Education Association Convention, Boston, Mass. (April 2 to 5, 1930): PERRY L. DAVIS, B.S., '28, A.M., '29.
- At the Dedication of the Jane A. Areson Residence Hall and the College Dining Hall at the Illinois Woman's College, Jacksonville, Ill. (May 3, 1930): Mrs. OSCAR C. HAYWARD, A.B., '07.
- At the Eleventh Decennial United States Pharmacopoeial Convention, Washington, D. C. (May 13, 1930): Professors Charles C. Lieb and Michael G. Mulinos.
- At the Annual Meeting of the Society for the Promotion of Engineering Education, Montreal, Canada (June, 1930): Dean George B. Pegram.
- At the Convention of Educational Buyers and the National Association of Purchasing Agents, Chicago, Ill. (June 12 to 18, 1930): JOHN T. HOPKINS.
- At the World Power Congress, Berlin, Germany (June 16 to 25, 1930): Professor Arthur W. Hixson.
- At the International Congress of Mines, Metallurgy, and Applied Geology, Liége, Belgium (June 22 to 28, 1930): HENRY KRUMB, E.M., '98.

PART II Report of the Treasurer



REPORT

To the Trustees of Columbia University in the City of New York

The Treasurer makes the following report of the financial affairs of the Corporation for the year ended June 30, 1930.



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INCOME AND EXPENSE ACCOUNT (GENERAL FUNDS) FOR THE YEAR ENDING JUNE 30, 1930

INCOME FROM ALL SOURCES

n 0, 1 t.			
From Students:		**********	
Fees (see page 9)		\$4,375,976.92	
Residence Halls (see page 7)		479,787.34	
Dining Halls (see page 8)		366,755.80	
Other Income		14,265.38	\$5,236,785.44
			
From Endowments:			
Rents (see page 8)		1,662,098.76	
Income of Special Endowments (see page 8)		1,865,665.38	3,527,764.14
Theome of opecial Bildowments (see page 6)	,		***************************************
From Other Properties-Rents (see page 8)			42,672.46
From Investments in Personal Property (see			82,405.58
			27,274.38
From Investment of Redemption Fund (see p			21,214.30
From Gifts and Receipts for Designated P			mad 600 04
page 9)			701,683.34
From Allied Corporations (see page 9)			1,500,708.16
From School of Dental and Oral Surgery Clinic	s (see page 9)		96,483.68
From Civil Engineering Testing Laboratory (se	ee page 9)		23,725.11
From Department of Buildings and Grounds (s			66,016.32
From Miscellaneous Sources (see page 9)			1,908.75
From Miscenancous courses (see page >/			
Total Income			\$11,307,427.36
EXPENSES			
Educational Administration and Instruction			
(see page 31)		9,158,591.49	
Buildings and Grounds-Maintenance (see			
page 33)		991,902.13	
Library (see page 36)		408,601.11	
Business Administration of the Corporation:			
Salaries and Office Expenses (see page 37)	\$181,537.30		
Insurance on Academic Buildings (Fire and	\$101,007,00		
	46,101.12	227,638.42	
Liability) (see page 37)	40,101.12	227,030.42	
4		71,212.27	
Annuities (see page 38)		11,212.21	
Special Appropriations—Schedule J (see		226 745 00	
page 38)		226,745.80	
Interest on Corporate Debt, etc. (see page 39)		419,679.89	
Total Expenses exclusive of provision for			
Redemption Fund and Amortization of			
Loan of 1925			\$11,504,371.11
Balance, being excess of Expenses over In-			
come before providing for Redemption			
Fund and Amortization of Loan of 1925			\$196,943.75
Add:			• • •
Amount transferred to Redemption Fund			
for retirement of 4 per cent Mortgage		100,000.00	
Bonds		100,000.00	
Amount transferred for Amortization of		47 500 00	147 500 00
Loan of 1925		47,500.00	147,500.00
Deficit, being excess of expenses for main-			
tenance over income after providing for			
Redemption Fund and Amortization of			
Loan of 1925			\$344,443.75
Loan or 1925			40.1-,-13.10

INCOME OF THE CORPORATION—YEAR ENDING JUNE 30, 1930

	From Students	w w	100		-
	Fees	Other Income	From Other Sources	n N	Lotai
From Students: Morningside Heights: University Fees. Degree and Examination Fees. Privileges of Late Registration and Examination. Tuition Fees.	\$140,294.55 60,635.00 21,101.50 1,308,428.00 \$1,530,459.05				\$1,530,459.05
Summer Session: University Fees Tuition Fees Less Teachers College and Union Theological Seminary Proportions 527,173.50	96,530.00				
Deficiency and Late Examination	1,568.00 397,816.0	397,816.00			397,816.00
Excursions.		\$1,688.00	\$1,688.00	:	1,688.00
University Extension: University Fees. Tuition Fees. Home Study Fees. Home Study Book Sales. Institute of Arts and Sciences. American Institute of Banking.	96,520.00 976,507.00 751,571.60 46,034.43 74,356.42	2,020.82			2,020.82

	REPUI	CI OF	THE IK	EASUI	CEK	•
106.704.00				135,639,42	9,245.60	1,310.96
106.704.00						
						1,310.96
					9,245.60	1,310.96
106.704.00				290.00	43,300.00	
7,180.00 97,683.00 1,841.00	8,620.00 206,070.00 2,379.00	4,340.00 102,522.92 150.00 690.00	1,490.00 22,350.00 710.00 84.00	290.00		
Seth Low Junior College: University Fees. Tuition Fees. Degree and Examination Fees	Medical School: University Fees. Tuition Fees Degree and Examination Fees	School of Dental and Oral Surgery: University Fees. Tuition Fees. Deficiency and Late Examination.	Oral Hygiene: University Fees. Tuition Fees. Graduation Fees. Deficiency and Late Examination.	Advanced Courses: University Fees. Tuition Fees	Miscellaneous. Student Activities Fees.	Material Furnished Students

	From Students		į,		E
	Fees	Other Income	From Other Sources	r Sources	LOCAL
Dining Halls: University Commons John Jay Hall Dining Room Johnson Hall Dining Room		\$67,637.03 181,434.31 117,684.46			\$366,755.80
From Endowment: Rents: Uppor Estate			\$1,542,911.23	44 645 000 74 F	
From Income of Special Endowments: For Specific Purposes For General Purposes			1,117,444.62748,220.76	1,117,444.62 748,220.76 1 865,665 38	3 527 764 14
From Other Properties—Rents				42,672.46	42,672.46
From Investments in Personal Property: Interest: On General Investments. On Deposits of General Funds. On Nents. On Student Deposits. On Notes Receivable. On S03-11 Broadway. On Gifts and Receipts for Designated Purposes.			6,838.60 4,486.20 42.03 5,407.13 4,166.31 10,686.38	6,838.60 4,486.20 4,486.20 5,407.13 6,166.31 0,086.38 82,405.58	82,405.58

27,274.3	701,683.3	1.500.708.1	96,483.6	23,725.1	66.016.3	1,908.7	1,307,427.3	
27,274.38	701,683.34	1.500.208.16		23,725.11	24,764.65 3,020.75 1,000.00 26,825.92 10,405.00 66,016.32	1,908.75	\$6,070,641.92 \$11,307,427.3	
		447,902.90 120,152.93 35,000.00 842,639 60 55,012.73			24,764.65 3,020.75 1,000.00 26,825.92 10,405.00	60.00 1,354.57 494.18		
							\$860,808.52	\$5,236,785.44
							\$4,375,976.92	_
								_
From Investment of Redemption Fund	From Gifts and Receipts for Designated Purposes	From payments by Allied Corporations: For salaries and annuities: Barnard College. Carnegie Foundation Presbyterian Hospital Laboratories. Teachers College. St. Stephens College.	School of Dental and Oral Surgery: Teaching and Service Clinics (including Infirmary)	Receipts from Testing Laboratory: Civil Engineering	Superintendent of Buildings and Grounds: Barnard College for Heat, Light and Power. Income from Tennis Courts. Post Office Government Allowance. Telephone Charges. Heating University Houses.	From Miscellaneous Sources: Consents Jobbing Accounts Overhead and Discount Various.		

EXPENSES—EDUCATIONAL ADMINISTRATION AND INSTRUCTION

From Gifts and Receipts for ents Purposes	2	1,568.93
From Income of Special Endowments	2, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	:
From General Income	\$209,325.02 2,000.00 27,660.00 4,57,000.00 20,000.00 63,336.55 12,500.00 3,500.00 1,500.00 4,99,96 499,96	
Depart- mental Totals		
Expenditures	\$244,400.00 2,001.94 27,660.00 4,841.41 20,000.00 63,836.55 12,500.00 3,500.00 1,500.00 2,668.60 1,500.00 2,078.95 1,200.00 2,688.60 1,500.00 2,688.60 2,688	1,568.93
	GENERAL UNIVERSITY ADMINISTRATION: Salaries. Dean's Fund. Bureau of Supplies. President's Emergency Fund. President's Fund. Ceremonies. State Adi for Blind Pupils. Special Convocations. President's House Furnishing. Clerk's Office Sundries. Study of Contemporary France. Social Club Kindergarten Class for Faculty Children. University Representation. University Representation. Collegiate Educational Research. Statistical Bureau. Researchs in the Humanities. Researchs in Journalism. College of Pharmacy. 175th Anniversary Celebration.	Loudspeaker for McMillin Theatre

REI	ORT	OF T	HE T	REASU	RER	11
200.00 1,706.54 1,500.00		4,500.00				10,000.00
122.67					57.75	316.21
3,354.36	5,000.00 8,179.99	62,280.75 7,350.00 6,100.00	3,600.00	11.500.00 16,750.00 4,990.00	16,327.90	
200.00 1,706.54 1,500.00 3,354.36 43,300.00 2,955.53	5,000.00	66,780.75 7,350.00 6,100.00	3,600.00	11,500.00 16,750.00 4,990.00	16,385.65 3,833.73 249.67	10,316.21
Portrait of Admiral Hardy. Expenditures from Seligman Gift Expenditures from Lee Gift Joint Administrative Board Expenses Student Activities. Athletic Association.	EARL HALL Salaries. Departmental.	OFFICE OF THE REGISTRAR Salaries. Diplomas. Conduct of Examinations.	ADVISER TO GRADUATE WOMEN STUDENTS Salaries. Departmental Appropriation.	OFFICE OF UNIVERSITY ADMISSIONS Salaries. Departmental Appropriation. Preparation and Rating of Examination Books.	OFFICE OF STUDENT APPOINTMENTS Salaries. Departmental Appropriation. Shoemaker Fund	OFFICE OF ALUMNI FEDERATION Departmental Appropriation

3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,734.47 32,73	UNIVERSITY MEDICAL OFFICER Salaries. Supplies. Residence Idalis Service. COMMONS Salaries. University Commons. Johnson Hall Dining Room. John Jay Hall Dining Room. Salaries. House Appropriation.	Expenditures \$22,881.42 1,506.56 10,054.68 4,500.00 63,511.91 107,153.45 180,656.96	Depart-mental Totals	From General Income 1,506.56 6,064.68 6,064.68 63,511.91 107,153.45 180,656.96 8,634.25 2,050.00	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes \$3,990.00
30,000.00 30,000.00 30,000.00 31,129.47 32,734.47 32,734.47 7.500.00 7,489.93 7,489.93 4,822.48 9,822.48	ty Press.	3,000.00		3,000.00		
33,129,47 14,619.83 7,500.00 7,489.93 9,822,48 119,865.64	Fund	30,000.00		30,000.00		
14,619.83 14,619.83 7,500.00 1,489.93 7,489.93 \$7,489.93 9,822.48 9,822.48		33,129.47		32,734.47		395.00
7,500.00 7,489.93 9,822.48 9,822.48 9,822.48	ton	14,619.83		14,619.83		
7,489,93	Greenwich House.	7,500.00				7,500.00
9,822,48		7.489.93			\$7,489.93	
1,102,865,04	The Brand	0 822 48			0 822 48	
	TOTAL PRINCE.	7,044,10	1 192 865 04		7,044,047	

	REPO	ORT O	FTHE	TR	EASUR	E R 13
200.00		9,531.51 568.71	4,225.18 262.18 1,000.00 9.34	32.00	7,920.00 6,163.64 14.17	1,708.90
	250.00	783.79 583.85			32,920.96 2,489.16 	50,437.67 25,522.28 6,543.07
3,940.38	900.00	2,185.96				
	4,440.38	13 653 89		5,496.70	70,000,00	49,703.20
3,940.38	900.00	9,531.51 3,538.46 583.85	4,225.18 262.18 1,000.00 9.34		40,840,96 2,489,16 6,163,64 489.50	52,146.57 25,522.28 6,543.07 4,034.47
INTERNATIONAL RELATIONS Aid for Foreign Students American Council on Education.	MAISON FRANCAISE Salaries. Department Appropriation.	CASA ITALIANA Salaries. Departmental Appropriation. Repairs and Alterations.	DEUTSCHES HAUS Maintenance. Entertainment. Traveling Expenses. German Periodicals.	INSTITUTE OF RUMANIAN CULTURE	INSTITUTE OF PUBLIC HEALTH Salaries. Departmental Appropriation Research. Equipment.	INSTITUTE OF CANCER RESEARCH Salaries. Departmental Expenses. Supplies and Equipment. Journal of Cancer Research.

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
TROPICAL MEDICINE (SCIIOOL OF) Salaries Contingent Fund	\$26,100.00	\$28,447.36	\$7,900.00	\$18,200.00	
ANTHROPOLOGY Salaries. Departmental Appropriation Research. Equipment.	20,300.00 100.00 191.62 918.05	21,509.67	7,000.00	5,000.00	\$8,300.00 191.62 918.05
ARCHITECTURE Salaries Departmental Appropriation	\$56,200.00	\$58,670.00	\$56,009.10		\$190.90
ASTRONOMY Salaries. Departmental Appropriation Equipment.	10,200.00 749.50 349.25	11,298.75	8,225.00 749.50	\$349.25	1,975.00
BOTANY Salaries. Salaries Departimental Appropriation Gardener. Research	50,600.00 1,783.02 1,500.00 3.26	53,886.28	28,500.00 1,783.02 1,500.00		22,100.00

	REPOR	TOF	THE	TREAS	URER	15
1,400.00	663.65	20,100.00	1,200.00	24,010.18 4,340.40 14,95		3,675,00
47,490.99	4,500.00 250.00 947.77	00.000,9	6,300.00	7,564.51	3,852.47 123.22 352.08	786,25
113,070.07	42,900.00 6,500.00 6,659.10	61,300.00 18,500.00 7,500.00	15,000.00 11,000.00 8,917.64 39,813.36	9,985.05	6,597.53	32,669.38
162,169.91	62,613.52			264,845.19	10,925.30	
161,961.06	47,400.00 6,500.00 7,572.75 1,140.77	81,400.00 24,500.00 7,500.00	15,000.00 18,500.00 13,104.74 39,813.36	19,112.00 24,010.18 4,340.40 7,564.51 10,000.00	10,450.00 123.22 352.08	36,344.38 746.22 786.25
BUSINESS (SCHOOL OF) Salaries Departmental	CHEMICAL ENGINEERING Salaries. Laboratory Servants Equipment.	CHEMISTRY General and Inorganic: Salarles Organic: Salaries Physical: Salaries	Analytical Salaries. Food: Salaries Equipment and Supplies Laboratory Costs.	Assistance Research: Salaries. Research: Supplies Apparatus Departmental Appropriation.	CHINESE Salaries Departmental Appropriation Lectures	CIVIL ENGINEERING Salaries. Departmental Appropriation For Research.

		Depart-	From	From	From Gifts and Receipts
	Expenditures	Totals	Income	Endowments	Designated Purposes
Testing Laboratory.	\$17,685.98	650 567 83	\$17,685.98	\$4,000.00	
DENTAL AND ORAL SURGERY (SCHOOL OF) Salaries Equipment and Supplies Social Service.	288,606.91 30,866.28 23,060.83	27.00	278,750.06 30,860.91 23,060.83		\$9,856.85
ECONOMICS Salaries. Departmental Appropriation. Equipment.	116,691.24 1,062.90 238.73	342,334.02	98,341.24 1,062.90 238.73		18,350.00
ELECTRICAL ENGINEERING Salaries. Departmental Appropriation.	40,300.00	45 299 79	\$40,300.00 4,999.79		
ENGINEERING DRAFTING Salaries Drawing Appropriation	14,500.00	14 768 87	14,500.00		
ENGLISH AND COMPARATIVE LITERATURE Salaries. Departmental Appropriation. Dramatic Museum Equipment.	196,476.66 1,140.00 274.38	197,891.04	134,167.29	5,909.37	56,400.00

FINE ARTS Salaries Equipment	37,175.00	37 017 08	22,900.00	4,000.00	10,275.00	
GEOLOGY AND MINERALOGY CEOLOGY Salaries Salaries Departmental Appropriation. Summer Field Work. Crosby Collection of Lantern Slides.	57,440.00 2,500.00 499,96 9,55 711,94		42,505.00 2,500.00 499.96	5,435.00	9,500.00	REIORI
MINERALOGY Salaries	8,200.00	69,361.45	8,200.00		:	O I
GERMANIC LANGUAGES Salaries. Departmental Appropriation. Lectures. Germanic Review.	58,200.00 117.67 24.00 300.00	58.641.67	37,298.20	1,000.00	19,901.80	11112 11
GREEK AND LATIN Salaries Greek: American School at Athens Latin: American School at Rome Equipment Departmental Appropriation. Purchase of Books.	71,800.00 250.00 250.00 462.11 75.00 500.00	73.337.11	40,700.00 250.00 250.00 75.00	462.11	31,100.00	CERSORER
HISTORY Salaries Departmental Appropriation. Publications	142,450.00 800.00 140.68	143,390.68	122,950.00 800.00	140.68	19,500.00	11

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
INDO-IRANIAN LANGUAGES Salaries. Departmental Appropriation.	\$17,500.00	\$17,521.64	\$16,750.00	\$750.00	
INDUSTRIAL ENGINEERING Salaries. Departmental Appropriation.	12,500.00	12,698.37	12,500.00 198.37		
JOURNALISM Salaries. Departmental Appropriation.	48,571.00	53,493.64		48,571.00	
LAW SCHOOL Salaries. Departmental Appropriation. Legislative Drafting Research Fund Plus and Minus Examinations. Subvention to Columbia Law Review Moot Courts. Legislative Drafting Contingent Fund. Multigraph Office. Assistance and Research Dean's Fund.	146,500,00 60,00 6,738,61 1,000,00 1,000,00 2,100,00 3,350,80 3,053,40 1,000,00	192,851.20	139,000,00 600.00 1,000.00 498.39 600.00 3,000.00 6,000.00	7,500.00	\$6,738.61 10.00 350.80 24,053.40
Salaries	76,188.93	:	51,148.03		25,040.90

	REP	ORT O	FTHE	TREAS	SURER	19
157.40	16,650.00		458.04	5,000.00	20,164.38	20,350.00
		889.64	10,439.02	13,542.93 500.00	11,394.89	5,000.00
4,700.00	60,000.00	60,500.00	54,063.50 4,070.00 1,000.00	9,457.07 798.52 1,000.00	69,982.00	35,400.00 1,000.00 4,982.61
83,023.23	76,771.58	64,389.64	70,030,56	32,889.65		168,430.02
4,700.00 2,134.30	76,650.00	60,500.00 3,000.00 889.64	54,063.50 4,070.00 10,897.06 1,000.00	28,000.00 1,298.52 3,591.13	101,541.27	60,750.00 1,000.00 4,985.36
Departmental AppropriationBooks	MATHEMATICS Salaries Departmental Appropriation	MECHANICAL ENGINEERING Salaries. Departmental Appropriation. Apparatus.	MINING AND METALLURGY Salaries. Departmental Appropriation. Equipment and Research. Traveling Expenses.	MUSIC Salaries Departmental Appropriation University Orchestra.	PHILOSOPHY AND PSYCHOLOGY PHILOSOPHY Salaries Departmental Appropriation	PSYCHOLOGY Salaries Laboratory Helper Departmental Appropriation

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
PIIVSICAL EDUCATION Salaries Equipment. Care of Swimming Pool.	\$70,110.00 3,488.54 1,500.00	\$75,098.54	\$42,690.30 3,488.54 1,500.00	\$1,219.70	\$26,200.00
PHYSICS Salaries Departmental Appropriation. Research Laboratory Apparatus.	140,953.85 12,459.59 644.71 3,065.42	157,123,57	126,472.35	3,065.42	14,481.50
PUBLIC LAW AND JURISPRUDENCE GOVERNMENT AND POLITICS Salarics	24,300.00		10,300.00	3,100.00	10,900.00
PUBLIC LAW Salarics. Departmental Appropriation.	34,462.60	59,062.60	24,062.60	10,400.00	
RELIGION Salaries Chapel Services Chapel Music Religious Work Chapel Organ	8,868.30 8,348.25 224.93 101.02 25.50 646.00	18,214.00		8,823.33 8,348.25 224.93 47.25	44.97 53.77 25.50 422.50

ROMANCE LANGUAGES Salaries. Departmental Appropriation. Equipment. Publications.	137,300.00 480.53 300.00 456.00	138.536.53	93,400.00 480.53 300.00		43,900.00	R
SEMITIC LANGUAGES Salaries. Departmental Appropriation. American School of Oriental Research in Jerusalem.	11,483.75 48.50 100.00 403.59	19 035 84	9,000.00 48.50 100.00	2,483.75		EPORT
SLAVONIC LANGUAGES Salaries. Departmental Appropriation.	6,400.00	6.426.10	6,400.00			OF T
SOCIAL SCIENCE Salaries Salaries Departmental Appropriation Bulletin of Social Legislation Research Equipment	54,500.00 500.00 133.55 142,671.46 850.00		22,500.00 500.00 850.00	18,000.00	14,000.00	HE TRE
SUMMER SESSION Administration and Instruction Entertainment	251,378.27	198,633,01	246,361.27		5,017.00	ASUR
CAMP COLUMBIA Administration and Instruction	4,499,43	257,220.40	4,499,43			ER
UNIVERSITY EXTENSION Administration and Instruction Institute of Arts and Sciences American Institute of Banking.	662,452.79 39,999.61 73,856.42		646,987.16 39,999.61 73,856.42	15,465.63	15,465.63	21

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
Printing and Postage. Departmental	\$43,111.10	\$899,591.88	\$43,111.10 79,871.96		\$300.00
Salaries and Payments for Instruction and Supervision. Salaries and Office Supplies. Printing and Office Supplies. Special Course Expenses Registration and Advisory Expenses. Text Books and Materials Supplied to Students.	242,220,34 165,954,44 16,925,92 206,917,62 83,132,90	715,151.22	242,220.34 165,954.44 16,925.92 206,917.62 83,132.90		
ZOOLOGY Salaries Salaries Salaries Marine Table, Wood's Hole. Equipment. Special Equipment	104,164.00 5,998.70 750.00 10,493.04 2,126.86	\$123,532.60	65,705.56 5,998.70 750.00	\$7,258.44	31,200.00
ADMINISTRATION Salaries Alcobol. Office Supplies and Sundries Care of Animals. Cleaning Portraits Reconditioning Faculty Room.	38,472,72 1,424,84 4,892,74 5,464,71 58,72 2,650.00	53 0 62 43	31,514.16 1,424.84 2,050.40 5,464.71	1,185.84	5,772.72 2,842.34 58.72

ANATOMY Salaries. Departmental Appropriation Publications. Equipment.	86,970.11 9.924.45 191.13 1,499.16	00 5 84 8	82,282.49 9,924.45 1,499.16		4,687.62	R E
BACTERIOLOGY Salaries. Departmental Appropriation. Equipment and Supplies.	77,587.51 6,500.22 7,448.52		20,735.06 180.22 800.00	31,059.86 6,320.00 6,648.52	25,792.59	PORT
BIOLOGICAL CHEMISTRY Salaries. Departmental Appropriation	69,928.62	91,330.23	45,650.00 1,399.84	11,410.00 6,100.00	12,868.62	OF T
DERMATOLOGY Salaries. Departmental Appropriation Equipment.	31,671.26 2,507.74 665.49	34 844 40	19,000.00 2,500.00 665.49		12,671.26	HE T
DISEASES OF CHILDREN Salaries. Departmental Appropriation Supplies.	37,280,40 2,108.13 278.85	30 667 38	34,780.40 2,108.13 278.85	2,000.00	500.00	REASU
NEUROLOGY Salaries. Departmental Appropriation.	32,037.12 5,999.93	38 037.05	23,845.00 5,999.93	1,000.00	7,192.12	RER
OBSTETRICS AND GYNECOLOGY Salaries. Departmental Appropriation	31,700.00		28,700.00 1,436.92	3,000.00		23

From Gifts and Receipts for Designated Purposes		\$7,306.76	1,345.70	5,300,00 12,192.23 1,280.00	9.14	643.70
From Income of Special Endowments				\$27,775.52		38,499.99
From General Income	\$8,332.61	2,800.00	2,600.00	40,866,94 6,473.36 275.00	22,800.00 200.00 5,500.00	11,473.35
Depart- mental Totals	\$43,269.53	10,864.58	4,162.37	96,883.05	28,708.42	
Expenditures	\$8,332.61	10,106.76	3,945.70	73,942.46 6,473.36 12,467.23 4,000.00	22,999.28 209.14 5,500.00	50,617.04
	Pathologist and Pathological Equipment	OPHTHALMOLOGY Salaries. Departmental Appropriation.	OTO-LARYNGOLOGY Salaries Departmental Appropriation.	PATHOLOGY Salaries. Departmental Appropriation. Research Supplies.	PHARMACOLOGY Salaries. Special Equipment. Departmental Appropriation.	PHYSIOLOGY Salaries Departmental Appropriation

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Equipment Animal Care	1,748.34		495.21	1,748.34		
PRACTICE OF MEDICINE Salaries. Laboratory Appropriation (Clinical Pathology) Departmental Appropriation (Bellevue Hospital) Departmental Appropriation. Research Research	164,978.15 1,300.00 215.63 2,970.75 37,089,90	66'nnoo'1'6	2,400.00	111,584.82 215.63 2,970.75	50,993.33	R D I O R
PSYCHIATRY Salaries Departmental Appropriation	16,933.72	222,829.72	9,328.05	3,650.00	3,955.67	. 01
SURGERY Salaries. Departmental Appropriation. Supplies (Research Laboratory)	123,942.02 1,987.90 10,892.72	17,574.88	38,900.00	76,792.02	8,250.00	
PHOTOGRAPHIC LABORATORY Photographer Supplies	2,400.00	130,822.04		2,400.00		
DIAGNOSTIC LABRATORIES EXPENSES		1,732.27	1	1,732.27		0 11 1
SLOANE HOSPITAL AND VANDERBILT CLINIC OPERATION AND MAINTENANCE.		70,000.00	70,000.00			, 10
TEACHERS COLLEGE Salaries.		804,850.00			804,850.00	-0

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
ST. STEPHEN'S COLLEGE Salaries.		\$55,012.73			\$55,012.73
RETIRING ALLOWANCES	:	87,640.31	\$14,727.50		72,912.81
WIDOWS' ALLOWANCES	:	41,053.86	7,877.50		33,176.36
ANNUITIES		83,304.38	55,126.16		28,178.22
FELLOWSHIPS, SCHOLARSHIPS AND PRIZES					
FELLOWSHIPS Adams. American Manufacturers of Toilet Atticles	\$400.00			\$400.00	1.800.00
Anonymous.	200.00				500.00
Anonymous French Fellowship. Baier (Victor) (Music).	1,000.00			1,000.00	20.11
Bakelite Rrideham	884.74	:		1 100 00	884.74
Cutting (W. Bayard).	8,000.00			8,000.00	
Drisler (Classical Philology) Du Pont (E. I.) (de Nemours Co.) (Industrial Chemistry)	1,500.00		1,500.00		1,000.00
Emmons	1,658.54			1,658.54	
Fellowship in Jewish History, Literature and Institutions	750.00	:		750.00	
Gilder (R. W.) (Political Science)	2,400.00			2,400.00	

	1,500.00	R .	E P		: : : :	T 2.227.60		F		r 1	1,938.55	350.00 H	400.00	175.00 L	: : : : : : : : : : : : : : : : : : :	E	: A		181.00	200.00	: : :	E	: :				11,200.00	
1,250.00	2,250.00	525.00 837.50	1,680.21	1,800.00	500.00	972.00			250.01	1,102.00					300.00	1,250.00	100.00	400.00			853.71		250.00	250.00	300.00	300.00		200.00
						40.072.40															946.29	1,800.00						:
							97,145.88																					
1,000.00	2,250.00	525.00 837.50	1,680.21	1,800.00	500.00	972.00			250.01	1,102.00	1,938.55	350.00	400.00	175.00	300.00	1,250.00	100.00	400.00	181.00	500.00	1,800.00	1,800.00	250.00	250.00	300.00	300.00	11,200.00	200.00
Goldschmidt (Samuel Anthony) (Chemistry) Kemp.	Laird McKim	Mitchell (William) (Letters or Science) Morris	Proudfit	Koberts (Lydia C.).	Trowbridge	Tyndall . IIniversity		SCHOLARSHIPS	Aldrich (James Herman) (College)	Alma Mater	Alumni	Anonymous	Anonymous Architecture	Anonymous—Mechanical Engineering	Bangs	Barker	Beck (College)	Beck Prize (Law)	Benjamin	Blossom	Brooklyn (College)	Brooklyn (Barnard College)	Burgess (Annie P.) (College)	Burgess (Daniel M.) (College)	Butler (Richard)	Campbell (College)	Carnegie Corporation	Class of 1848 (College)

		Depart-	From	From	From Gifts and Receipts
	Expenditures	mental Totals	General	of Special Endowments	for Designated Purposes
Class of 1885, School of Mines.	\$656.25			\$656.25	
Class of 1896 (College, Applied Science or Architecture)	705.00			705.00	
Class of 1904.	800.00	:	:	800.00	
Class of 1906	420.00	:			\$420.00
Class of 1909.	400.00			20 20 75	400.00
Columbia College	2,895.00			20,202	2,895.00
Columbia University Club	6,250.00	:			6,250.00
Curtis (University)	00.009	:	\$600.00		
De Witt	765.09	:		765.09	
Dunn (Gano) (Applied Science)	350.00				350.00
Edson	424.22			424.22	
Evans.	1,182.78			1,182.78	
Faculty	22,640.00		20,849.30		1,790.70
Fund in Aid of Deserving Students	10,998.00		10,998.00		
Gibson	200.00			200.00	
Hall (George Henry) (College)	725.00	:		725.00	
Harnson	351.00			251.00	700.00
Huber	250.00			250.00	
Jones (John D.) (Pure Science)	200.00				200.00
Jones (Thomas Emery)	175,00				175.00
MacMahon	151.82			151.82	
McClymonds (Louis K.) (College)	1,819.70	:		1,819.70	
Marcus	350.00	:	:		350.00
Megrue (Roi Cooper)	438.66	:	:	438.66	
Megrue (Stella Cooper)	438.66			438.66	

				From	From Gifts
		Depart-	From	Income	and Receipts
	Expenditures	mental	General	of Special	for
		Totals	Income	Endowments	Designated
					rurposes
Donney (Ton Administration)	\$250.00			\$250.00	
Dealing (F.O. Authinistration)	50.00			50.00	
Desirona (Damond Cutliff) (Collone)	00.09			00.09	
Plannar (Edward Suchin) (Concest)	87.00			87.00	
Butter (Nicholas Murray) Medale	325.00			325.00	
Chandler	374.82			374.82	
Class of 1892	330.00			330.00	
Darling	53.50			53.50	
Hara	66.25			66.25	
	53.00			53.00	
Elsherg (Albert Marion) Prize (Modern History)	95.00			95.00	
Fwell	20.00			20.00	
Fox	35.73			35.73	
Green (Albert Asher) Prize (College)	55.00			55.00	
Haughton	75.36			75.36	:
Illig Medals	120.00			120.00	
Michaelis Prize	20.00			20.00	
Montgomery (Robert H.) Prize (School of Business)	100.50			100.50	
Ordronaux (John) Prize (Law)	152.50			152.50	
Peele	117.50			117.50	
Philolexian Prize	70.00			70.00	
Pulitzer Prizes	22,500.00			22,500.00	
Pulitzer Prizes (For Administration)	6,875.52			6,875.52	
Rolker (Charles M. Jr.) Prize (College).	50.00			20.00	
Romaine (Benjamin F.) (Greek: College)	312.12			312.12	
Souires	262.50			262.50	
Stokes Stokes	45.00			45.00	
CLORES					

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	RE	ΡO	R	r	0	F	Т	н	E	,	T F	RE	E A	S	U	R	E	R			31
								625.00								2 070 01	141.68				\$2,116,675.94
210.00 71.93 265.00 300.00	30.00		00000	2,154.00	762.50	325.00	900.00	1,000.00	1,566.00	\$310.00	1,956.47	293.75	1,000.00	2,500.00	250.00	90.13		175.00	275.00		\$986,712.40
																					\$9,158,591,49 \$6,055,203.15
	35,093,23																			19,352.74	\$9,158,591.49
210.00 71.93 265.00 300.00	30.00		•	2,154.00	762.50	325.00	900.00	1,625.00	1,566.00	\$310.00	1,956.47	293.75	1,000.00	2,500.00	250.00	90.13	3,278.21	175.00	275.00		
Toppan Prize. Van Amringe Medal. Van Amringe Mathematical Prize (College). Van Buren (John Dash, Jr.) Prize (Mathematics: College).	Wendell (George V.) Mcdal	FELLOWSHIPS, SCHOLARSHIPS AND PRIZES AT THE MEDICAL SCHOOL		Blumenthal (George Jr.) Scholarships. Blumenthal (George Jr.) Scholarships.	Clark (Alonzo) Scholarship.	Devendorf (David M.) Scholarship. Doughty (Francis E.) Scholarship	Du Bois (Dr. Abram) Fellowship.	Gies (William J.) Fellowship	Harsen Scholarships.	Hartley (Frank) Scholarship	Holt (L. Emmett) Fellowship. Huber (Francis) Scholarship.	Huber (Viola) Scholarship	Jacobi (Abraham) Scholarship	James (Walter Belknap) Fellowship	McAneny (Marjorie) Scholarship	Meierhof Prize,	Research Fellowship in Medicine	Smith (Joseph Mather) Prize.	Watson (Dr. William Perry) Prize		

EXPENSES—BUILDINGS AND GROUNDS

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
MORNINGSIDE HEIGHTS					
Salaries	\$18,000.00		\$18,000.00		
Wages.	74,947.08		69,379.08	\$5,568.00	
Gas	2,468.30		2,468.30		
Maintenance of Buildings	81,238.74		81,238.74 26,854.69		
Water	11,541.85		11,541.85		
Telephone Service	43,800.00		43,800.00		
Maintenance of Tournalism	16,294.12			16,294.12	
Public Ceremonies	2,999.53		2,999.53		
Summer Session: General Expense.	15,000.00		15,000.00		
Urgent Repairs.	85,500.00		85,500.00		
:	30.00			30.00	
Maintenance of Faculty House	8,243.63		7,499.81	743.82	
Maintenance of Casa Italiana	6,374.18		2.721.39		\$6,374.18
Special Equipment	90.00			90.00	
		\$837,696.19			

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KER FIELD	12,636.57		12.636.57			
Frankent Repairs						
Flag Poles.	1,503.53				1,503.53	
Boat Houses.			1,000.00			
		19,740.10				R
DICAL SCHOOL						E
Wages	00.000,09		00.000.09			P
Fue	30,000.00		30,000.00			0
Gas	2,000.00		2,000.00			R
Maintenance	16,578.51		15,000.00		1,578.51	1
Supplies.	10,974.85		10,974.85			:
Urgent Repairs.	912.48		912.48			C
Electricity.	14,000.00		14,000.00			F
		134,465.84				•
		\$001 002 13	\$001 002 13 \$050 710 07 \$22 725 04	\$22 725 04	\$0 456 22	T

EXPENSES—LIBRARY

From From Gifts Income and Receipts of Special for Endowments Purposes	\$1,500.00 \$5,974.85	2,500.00	100.00	1,800.00	6,090.00 2,364.88 500.00
From Income General of Special Income	\$179,170.80	10,177.55 2,5	8,950.55 1,448.93		2,3
Depart- F mental G Totals	\$186,645.65 \$179	10		2.457.53	76.650,6
Expenditures		\$10,177.55 . 2,500.00 . 500.00 .	8,950.55 . 1,448.93 . 3,068.20 .	1,800.00 657.53	6,090.00 . 2,364.58 . 500.00 . 105.39 .
	LIBRARY Salaries.	AVERY LIBRARY Salaries Purchase of Books Binding	BUSINESS (SCHOOL OF) READING ROOM Salaries Marvyn Scudder Library. Books and Binding.	CASA ITALIANA LIBRARY SalariesIncidentals.	JOURNALISM LIBRARY Salaries. Books and Binding. Newspapers. Incidentals.

	REPORT OF		TREASUR	
		912.00		25.32 66.10 1,394.79 135.24 254.41
12,756.42	1,337.50 200.32 283.29 91.50 344.82	9,000.00 3,689.34 809.16	2,914.02 2,014.02 26.03 109.20 77.51 348.58 617.37	
23,156.71 14,365.79 816.12	12,348.90 6,407.22	32,289.36	8,720.20	
\$51,095.04	21,013.55		8,720.20	
23,156.71 27,122.21 816.12	12,348.90 6,407.22 1,337.50 200.32 283.29 91.50 344.82	3,689.34	2,914.02 26.03 109.20 128.99 77.51 348.58 617.37	25.32 66.10 1,394.79 135.41 254.24 414.21
LAW SCHOOL LIBRARY Salaries. Books and Binding. Equipment.	MEDICAL SCHOOL LIBRARY Salaries. Books and Binding. E. G. Jameway Library. Jacobi Library. Weinstein Library. Huber Library.	BOOKS AND SERIALS. PURCHASES FROM SPECIAL FUNDS Banard Library. Cortheol (Alexander)	Currier Hamilton (John Church) Johnston (Edward W. S.) Manners (Edwin) Reckford Reisinger (Hugo) Schurz	PURCHASES FROM GIFTS University Extension Book Fund Columbiana Legislative Drafting Research Fund Loeb (James) Low (William G.). Montgomery (Robert H.)

	Expenditures	Depart- mental Totals	From General Income	From Income of Special Endowments	From Gifts and Receipts for Designated Purposes
Class of 1912. Friends of the Library. Draper. Crane. Seth Low Junior College. Morris. Dodge (M. Hartley). Huntington Memorial Library. Stander.	44.00 9.50 36.40 7.62 37.95 26.00 67.89 30,450.00	33 2000	10,000.00		44.00 9.50 9.50 7.62 37.95 26.00 67.89 20,450.00
BINDING	11,999.71	33,000,20	11,999.71		
LIBRARIAN'S EMERGENCY FUND	2,789.57		2,789.57		
SPECIAL EQUIPMENT	3,822.79		3,822.79	:	:
EMERGENCIES.	1,775.80		1,775.80		
BIBLIOGRAPHY IN CRIMINAL LAW AND CRIMINOLOGY	182.18		182.18		
PRINTED CATALOGUE CARDS	00'009		00.009	:	:
SUPPLIES	6,504.25	27,674.30	6,504.25		
		\$408,601.11	\$330,274.43	\$45,794.02	\$32,532.66

EXPENSES—BUSINESS ADMINISTRATION

From Gifts and Receipts for Designated Purposes	\$10,000.00			\$10,000.00
From Income of Special Endowments	\$2,499.99			\$2,499.99
From General Income	\$67,908.34 1,094.45 2,000.00 5,000.00 3,000.00 7,500.00 526.99 1,171.60 300.00	672.60 672.60 408.68 45,672.44 8,498.02 8,466.60	15,550.00	\$227,638.42 \$215,138.43
Depart- mental Totals	101.596.36	1,753.88	15,550.00 181,537.30 46,101.12	\$227,638.42
Expenditures	\$77,908.34 1,094.45 2,000.00 5,000.00 5,499.99 7,500.00 594.99 526.99 1,171.60	672.60 672.60 408.68 45,672.44 8,498.02 8,466.60		
	Salaries Extraordinary Legal Expenses Treasurer's Office Sundries Auditing Accounts Special Corporation Expenses. Office Rent 116th Street Tunnels—Franchises Amsterdam Avenue Franchise Federal Income Tax on Columbia College Bonds.	Chaplain's House (413 West 117th Street) Taxes. Dean's House (415 West 117th Street) Taxes. Camp Columbia Taxes. Office of the Bursar: Clerical Assistance. Supplies. Dental School Assistance.	Office of the Purchasing Agent: Assistance and Supplies	

EXPENSES—ANNUITIES

From From Gifts Income and Receipts of Special Endowments Designated Purposes		
From Income of Special Endowments	\$2,700.00 600.00 738.80 738.80 6,000.00 5,000.00 41,030.70	\$59,712.27
From General Income	\$4,000.00	\$11,500.00
Depart- mental Totals	\$4,000.00	
Expenditures	\$4,000.00 2,700.00 7,500.00 600.00 738.80 720.00 6,000.00 5,000.00 41,030.70 2,922.77	\$71,212.27
	John W. Burgess Fund Edward R. Carpentier Fund H. W. Carpentier Fund W. Bayard Cutting, Jr., Fellowship Fund Seidl Fund Waring Fund Anonymous Fund for Department of Metallurgy Anonymous Fund for Department of Physics	

EXPENSES—SPECIAL APPROPRIATIONS

President's Reserve Fund		36,533.91	36,533.91	36,533.91	
Retiring Allowances.	61,951.56		41,798.52	41,798.52	20,153.04
Renovation of Buildings and Grounds	24,255.12		24,255.12		4,255.12
Libraries	26,523.49		26,523.49		
Comparative Anatomy	27,481.72		27,481.72		
Seligman Library	50,000.00		50,000.00		
	\$226,745.80		\$206,592.76		\$20,153.04

INTEREST ACCOUNT

INTEREST ACCOUNT		
INTEREST PAID:		
On Columbia College Bonds	\$60,000.00	
On College of Dental and Oral Surgery Mortgages	6,140.62	
On Upper and Lower Estates Mortgage	219,331.25	
On 437 West 117th Street Mortgage	3,000.00	
On Current Loans	131,208.02	
-		\$419,679.89
DEDUCT INTEREST RECEIVED AS FOLLOWS:		
503-11 Broadway		10,686.38
		\$408,993.51

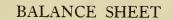
EXPENSES—SUMMARY

	Total	From General Income	From Income of Special ·	From Gifts and Receipts for Designated Purposes	From Allied Corporations
Educational Administration and Instruction. Buildings and Grounds. Library Business Administration. Special Appropriations. Interest	\$9,158,591.49 991,902.13 408,601.11 227,638.42 71,212.27 226,745.80 419,679.89	\$6,055,203.15 959,719.97 330,274.43 215,138.43 11,500.00 206,592.76 419,679.89	\$986,712.40 22,725.94 45,794.02 2,499.99 59,712.27	\$2,116,675.94 9,456.25 32,532.66 10,000.00 20,153.04	
Transferred from Gifts and Receipts for Designated Purposes	\$11,504,371.11	\$8,198,108.63	\$1,117,444.62	69	\$1,500,708.16
Transferred from Income of Special Endowments and Gifts. Alumni Federation of Columbia University. Alumni Federation of Columbia University Gift. Burgess (John W.). Carpentier (H. W.). Class of 1902. College of Dental and Oral Surgery Gift. Eno (Amos F.). Fire Insurance. Kennedy (John Stewart). School of Architecture Gift. Support of Graduate Schools Gift. Van Cortland (Robert B.).	761,794,40 \$6,272.13 6,000.00 76,534.71 1,020.00 452,931.30 3,000.00 153,684.12 11,504.371.11 87,436.314.23 811,504.371.11	761,794.40	\$6,272.13 \$6,200.00 6,000.00 1,020.00 452,931.30 3,000.00 153,684.12 48,778.50	\$038,109,70 13,182,72 25,00 25,00 1,00 1,00 354,92 8701,683,34	81.500.708.16

STUDENT LOAN FUNDS

	Principal at June 30, 1929	Additions	Principal at June 30, 1930	Loans	Balance
SPECIAL LOAN FUNDS					
Benedict	\$45.00	00 76	\$45.00	\$45.00	07 116
Dismonthal (Course It.)	20.503.05	\$0.08	22 005 00	150.00	\$411.60
Class of 1870 School of Mines	30,002.90	3.00	32,883.98	1 056 50	3 381 05
Class of 1886.	631.18	1.00	632.18	220.00	412.18
Class of 1887, School of Mines	11,826.96	421.69	12,248.65	5,252.03	6,996.62
Class of 1901	10,362.10	340.70	10,702.80	10,282.68	420.12
		(Decrease)			
Class of 1904	1,264.13	909.70	354.43	150.00	204.43
Class of 1908	1,060.04	15.48	1,075.52	911.71	163.81
Class of 1910	862.97		862.97	290.00	272.97
Class of 1914, War Memorial	1,052.67	22.75	1,075.42	925.00	150.42
Class of 1916	1,030.06	20.14	1,050.20	394.60	655.60
Clyde (Mrs. Ethel and Miss Edith)	3,805.19	25.23	3,830.42	3,288.56	541.86
Collins (Perry McDonough)	4,932.87	37.93	4,970.80	2,711.95	2,258.85
Engineering School	2,500.00		2,500.00		2,500.00
Graham (Newton)	13,965.63	256.96	14,222.59	13,716.65	505.94
Homes (Henry F.)	:	5,000.00	5,000.00	:	5,000.00
Huber (Frederick W.)	111.20	5.97	117.17		117.17
Kearney (Phil)	2,191.76	61.57	2,253.33	1,114.36	1,138.97
Knapp	2,143.20	41.67	2,184.87	1,068.86	1,116.01
Law School	81.36		81.36	67.50	13.86
Megrue (Roi Cooper) Emergency	10,000.00		10,000.00	:	10.000.00
Payne (C. Q.)	3,219.76	200.44	3,420.20	1,500.72	1,919.48
Shoemaker (William Brock)	6,119.23	444.85	6,564.08	3,832.04	2,732.04
Stabler (Edward L.)	1,292.57		1,292.57	392.00	900.57

	Principal at June 30, 1929	Additions	Principal at June 30, 1930	Loans	Balance
Students. University Extension.	\$18,724.03	\$12,528.74	\$31,252.77	\$16,931.80	\$14,320.97
Total Special	\$136,190.35	\$20,864.96	\$157,055.31	\$72,827.30	\$84,228.01
GENERAL LOAN FUNDS: Architecture Scholarship. Business Scholarship. College Scholarship. Engineering Scholarship. Fund of \$40,000.	\$4,053.17 22,067.03 32,063.62 15,081.97 41,418.04 25,853.98	\$1,126.91 6,360.54 10.236.85 4,207.60 807.98 7,982.82	\$5,180.08 28,427.57 42,300.47 19,289.57 42,226.02 33,836.80	\$3,291.23 8,926.31 41,632.06 6,317.07 35,845.66 31,634.71	\$1,888.85 19,501.26 668.41 12,972.50 6,380.36 2,202.09
Journalism Scholarship	8,825.10 38,239.76 42,401.76	2,545.62 10,982.24 12,654.79	11,370.72 49,222.00 55,056.55	6,359.50 25,541.31 33,903.10	5,011.22 23,680.69 21,153.45
Total General.	\$230,004.43	\$56,905.35	\$286,909.78	\$193,450.95	\$93,458.83
Total of Special and General Loan Funds	\$366,194.78	\$77,770.31	\$77,770.31 \$443,965.09 \$266,278.25	\$266,278.25	\$177,686.84
LOANS TO STUDENTS Special and General as above. General (Special 1914-1915 Loan Account). (Special 1923-1924 Loan Account).				\$266,278.25 791.10 776.28	
Less Reserves				\$267,845.63	
Net				\$256,115.12	



Redemption Fund:

Securities and Cash....

Loans—due from General Funds and Special Endowments and Funds per contra....

University Land, Buildings and Equipment at cost (see page 103).. 33,862,737.21

BALANCE SHEET AT JUNE 30, 1930

Special Endowments

600,000.00

33,862,737.21

ASSETS	Funds	and Funds	Total
Cash at Banks and on hand	\$70,624.02	\$1,165,923.73	\$1,236,547.75
Notes Receivable	112,188.33	58,207.75	170,396.08
Accounts Receivable:			
Sundry Debtors			
Accounts Receivable—Students, Less Reserve 9,000.77 Arrears of Rent (see page 49)			
Arrears of Rent (see page 49)	144,774.98	58,109,63	202,884.61
Loans to Students, less Reserve (see page 42)	194,503.03	61,612.09	256,115.12
Inventories of Materials and Supplies	277,305.53	,	277,305.53
Rents Accrued—not due	22,457.50		22,457.50
Deferred Charges	88,519.59	4,534.21	93,053.80
Advances:			
Upper Estate	2,402,500.65		2,402,500.65
Building Loan		190,000.00	190,000.00
Against future appropriations and bequests	60,742.35		60,742.35
On account of income of Special Endowments and Gifts (see		7.115.21	7.115.21
pages 59 and 72) University Patents, Inc.	6,787.67	7,113.21	6,787.67
University Fatents, Inc.	0,787.07		0,787.07
Investment of Deposits—Book value (see contra \$45,029.99)	29,878.50		29,878.50
Real Estate and Investments:			
Rental Property:			
General Funds:			
Upper and Lower Estates			
at 1930 assessed valua-			
tion\$30,732,237.99 Other Property at net Book			
Values (see page 105) 5,250,627.12			
Special Funds	35,982,865.11	5,410.016.52	41,392,881.63
Securities owned—Book value (see page 95)	5,152.17	28,258,827.26	28,263,979.43

600,000.00

\$73,861,036.64 \$35,214,346.40 \$109,075,383.04

221,751.26 2,872,113.84 3,093,865.10 \$74,082,787.90 \$38,086,460.24 \$112,169,248.14

Special

Endowments

2,831,244.77 262,620.33 3,093,865.10

General

BALANCE SHEET AT JUNE 30, 1930

LIABILITIES, RESERVES, FUNDS AND CAPITAL	Funds	and Funds	Total
Notes Payable	\$1,400,000.00		\$1,400,000.00
Accounts Payable	27,276.79		27,276.79
Deposits:			
Students	62 277 75		62 277 75
Payments received in advance:	63,277.75		63,277.75
Students fees			
Prepaid rents—rental properties	61,982.52	\$483.33	62,465.85
Interest Payable—accrued	64,166.21	\$300.00	64,166.21
Mortgages Payable:			
Upper and Lower Estates			
University Property			
Rental Property, etc. 4,621,293.81	9,161,293.81	2,500.00	9,163,793.81
Columbia College 4% Mortgage Bonds	1,500.000.00	2,300.00	1,500,000.00
Reserves:			
Contingent items. 308,426.30 Requisitions outstanding: estimates. 245,523.62			
Requisitions outstanding, estimates 245,525.02	245,523.62	308,426.30	553,949.92
Jnexpended income of Special Endowments (see page 59)		1,099,532.00	
Jnexpended Gifts and Receipts for designated purposes (see page 72)		873,065.30	873,065.30
page 12)		873,003.30	873,003.30
Endowments and Funds:			
Special Endowments (see page 146)		35,382,777.67	35,382,777.67
Student Loan Endowments (see page 42)	286,909.78	157,055.31	443,965.09
Permanent—for purchase of land, etc. (see page 148)	19,364,213.45		19,364,213.45
Principal of Redemption Fund	600,000.00		600,000.00
Amortization—Loan of 1925	380,000.00		380,000.00
Capital Account (see page 46)	38,096,899.20		38,096,899.20
	\$71,251,543.13	\$37,823,839.91	\$109,075,383.04
oans—due to General Funds and Special Endowments and	2 024 244 77	262 620 22	2 002 965 10

Funds per contra....

CAPITAL ACCOUNT AT JUNE 30, 1930

Balance—July 1, 1929		\$36,385,380.16
App:		
Increase in book value of Upper and Lower Estates based on 1930 assessed valuations	\$2,174,000.00	
Unexpended balances of requisitions outstanding at June 30, 1929	9,342.94	
previous years	2,563.37	
D	\$2,185,906.31	
Deduct: Services re. Upper Estate Lease	25,937.50	
Funds	7,353.84	
Expenses of the Committee on Funds	6,948.41	
Carrying charges—old Medical School	5,510.88	
Carrying charges—old Dental School	3,131.94	
Joint Administrative Board Expenses—January 1st		
to June 30, 1929	2,343.00	
Printing "Gifts and Bequests 1754-1928" Architects services re. proposed alterations—309	1,001.90	
East 34th Street	309.79	
vious years, etc	7,015.73	
	\$59,552.99	
Net additions		2,126,353.32
		\$38,511,733.48
Less:		
Transfers to Special Endowments and Gifts:		
To Student Loan Funds	51,840.00	
To Civil Engineering Testing Laboratories Fund. To Rockefeller Gift for Research in Legal Edu-	6,039.13	
cation To Anonymous Gift for New Boathouse at Baker	5,000.00	
Field	5,000.00	
To Summer Session Scholarship Gift To E. S. Harkness Gift for Residence Hall Site	1,746.00	
at Medical School	289.30	
To Alexander Smith Cochrane Gift	271.10	
To Income of Pulitzer Fund	150.00	
Gift	55.00	70,390.53
Deduct:		\$38,441,342.95
Excess of Expenditures over Income for fiscal year		
ended June 30, 1930		344,443.75
Balance—June 30, 1930		\$38,096,899.20

LINGLEY, BAIRD & DIXON

ACCOUNTANTS AND AUDITORS

TAX CONSULTANTS FACTORY COSTS AND ORGANIZATION
NO. 41, MAIDEN LANE
NEW YORK

RICHARD T LINGLEY, C.P.A.
JOHN J. BAIRD, C.A.
CHARLES A. BENNETT, A.S. A.A.
JOHN F. McCABE, LL.M.
CABLE ADDRESS

AUDITORS - NEW YORK

UNITED STATES
CHICAGO
LOS ANDELES
TULSA
ENGLAND
LONDON
CANADA
MONTREAL AND
PROVINCES
SOUTH AMERICA
RIO DE JANEIRO
SAO PAULO
CENTRAL AMERICA
MERICA COLOR

September 30, 1930.

CERTIFICATE

We have examined the books and records of the Treasurer of Columbia University in the City of New York for the fiscal year ended June 30, 1950 and we are satisfied as to the general correctness of the accounts. Our detailed report thereon has been submitted to the Treasurer.

The cash at banks and on hand has been verified and the securities representing the invested endowments and funds have either been produced to us or verified by certificates received from the depositaries. We have verified the income receivable from invested endowments and funds and have tested and substantially verified all other income shown by the books of the University. Payments made on account of principal and income of General and Special Funds and Gifts have been tested to satisfy ourselves of their general accuracy.

The securities owned are carried either at their purchase price or at the market value at the date of their acquisition by gift.

The Academic Properties, covering Land, Buildings and Equipment are carried in the accounts at cost or assessed valuations at date of acquisition. The properties known as the Upper and Lower Estates are carried at 1930 New York City assessed valuations. The other properties of the University are carried at cost, cost plus carrying charges, 1923 and 1927 New York City assessed valuations, and in a few instances at nominal values. These valuations, for the purposes of the accompanying Balance Sheet, appear to us to be proper. Reserves for depreciation have been deducted from the active rental properties.

On the basis stated above, WE HEREBY CERTIFY that the Balance Sheet submitted herewith is in accordance with the books and in our opinion fairly reflects the financial status of the University at June 30, 1930.

Tingley, Baird Dixon

Payments by Allied Corporations

General University Administration..... \$33,000.00

(1)	Salaries and	Annuities	Account	$Barnar \boldsymbol{d}$	College.	Credited to the	
	following	Departmen	nts:				

	Anthropology	4,300.00	
	Botany	22,100.00	
	Chemistry	20,100.00	
	Economics	16,250.00	
	English and Comparative Literature	56,400.00	
	Fine Arts	10,100.00	
	Geology	9,500.00	
	Germanic Languages	15,900.00	
	Greek and Latin	26,100.00	
	History	19,500.00	
	Mathematics	16,650.00	
	Music	5,000.00	
	Philosophy and Psychology	35,750.00	
	Physical Education	26,200.00	
	Physics	10,800.00	
	Public Law	10,900.00	
	Romance Languages	43,900.00	
	Social Science	10,000.00	
	Zoology	27,200.00	
	Library	3,600,00	
	Business Administration	10,000.00	
	Annuity Contributions	13,041.66	
	Retiring Allowances	1,611.24	\$447,902.90
(2)	Salaries and Annuities Account Teachers College. Credit		
(2)	following Departments:	ed to the	
	General University Administration	400.00	
	Food Chemistry	1,200.00	
	Education and Practical Arts	804,850.00	
	Institute of Public Health	900.00	
	Annuity Contributions	35,289.60	842,639.60
(3)	Carnegie Foundation. Credited to the following:		
	Astronomy	1,975.00	
	Economics	2,100.00	
	Physics	3,600.00	
	Retiring Allowances.	71,301.57	
		100 1107	

(4) Presbyterian Hospital. Credited to the following:

Laboratories.....

Social Science.....

Widows' Allowances.....

Zoology.....

35,000.00

120,152.93

4,000.00

33,176.36

4,000.00

(5) St. Stephen's College. Credited to the following:

Salar'es.....

55,012.73

\$1,500,708.16

ARREARS OF RENT, JUNE 30, 1930

UPPER ESTATE

12 West 49th Street	\$1,232.50 2,205.00	\$3,437.50
LOWER ESTATE		
75-7-9 Barclay Street. 83 Barclay Street. 252-4 Greenwich Street.	641.94 430.00 125.00	1,196.94
RENTAL PROPERTY		
115th Street and Amsterdam Avenue. 21 Claremont Avenue. 29-35 Claremont Avenue. 39-41 Claremont Avenue. 70 Haven Avenue. 70 Morningside Drive and 400 West 118th Street. 460-64 Riverside Drive. 403 West 115th Street. 404 West 116th Street. 424-30 West 116th Street.	3,108.34 891.67 671.26 239.17 602.50 2,217.00 6,923.75 2,080.75 1,578.34 1,258.34	19,571.12
ENO ESTATE		
430 West Broadway. 434 West Broadway. 434½ West Broadway. 44 West 64th Street. 46 West 64th Street. 68th Street and Broadway.	100.00 74.00 30.00 66.00 105.00 5,250.00	5,625.00
PHOENIX ESTATE		
94 First Avenue	18.00 611.10	629.10
HEMINGWAY PROPERTY		
237 Grand Street, Jersey City, N. J	_	122.00
	*	\$30,581.66

*Since June 30, 1930, this amount has been reduced to \$14,004.70.

RECEIPTS AND DISBURSEMENTS OF INCOME OF SPECIAL ENDOWMENTS FOR THE YEAR ENDING JUNE 30, 1930

ACCOUNTS	Debit Balances June 30, 1929	Credit Balances June 30,	Received 1929-1930	Total	Expended 1929-1930	Debit Balances June 30,	Credit Balances June 30,
Adams (Ernest Kempton)		\$7,213.06	\$3,000.00 300.00 6,272.13	\$10,213.06 300.02 6,272.13	\$400.00 250.01 6,272.13		\$9,813.06
Alumni War Bonus.	0.5	6.43	142.71	149.14	5 042 93		149.14
Anonymous for Department of Metallurgy.		3,152.78	6,000.00	9,152.78	5,000.00		4,152.78
Art Professorship			6,000.00	6,000.00	5,000.00		1,000.00
Avery Architectural. Baier (Victor).		865.96	3,000.00	3,865.96	2,500.00		1,365.96
Bangs (Francis Sedgwick)	:	4 26 5 00	360.00	360.00	300.00		60.00
Datkel (Carence) Musical Scholarsing.		2,236.31	600.00	2,836.31	1,230.00		4,515,99 2,836.31
Barnard Library		643.68	4,551.00	5,194.68	(1) 3,749.34 (2) 975.00		1,445.34
Bearns (Jospeh H.)Beck Prize.		7,035.55	2,387,49	9,423.04	1,450.00		7,973.04
Beck Scholarship			120.00	120.00	100.00		20.00
Beer (Julius)		252.42	80.109	853.50			853.50
Bennett Prize. Bergh (Henry)		367.38	60.00	427.38	50.00		377.38 9,998.78
Bertuch			2,147.15	2,147.15			2,147.15

270.63	8,402.40	790.61	12.00	3,688.66	649.16	20.00	20.00		657.55	603.12	00.09	1,581.68	2,500.00		7,735.85		6,900.50	1,800.00	1,789.00	22,710.31		318.07	08.09	10.50		100.00	33.62		131.25	260.23	90.20
7,000.00	6,543.07		00:09	1,100.00	87.00	250.00	250.00	00.000,9	325.00	300.00	300.00		12.500.00	76,534.71	13,000.00	1,367.64	16,337.10	00.000,6	00.000,6	19,861.78	374.82			52.50	4,000.00	200.00		30.00	656.25		<u>:</u> :
7,270.63	14,945.47	790.61	72.00	4,788.66	736.16	300.00	300.00	6,000.00	982.55	903.12	360.00	1,581.68	15,000.00	76,534,71	20,735.85	1,367.64	23,237.60	10,800.00	10,789.00	42,572.09	549.61	318.07	60.80	63.00	4,000.00	00'009	33.62	223.19	787.50	260.23	90.20
6,746.50	00.000,9	372.00	72.00	1,320.00	74.82	300.00	300,00	00.000,9	180.00	330.00	360.00	1,096.95	15,000.00	76,534.71	18,000.12	503.42	16,964.07	10,800.00	8,500.00	22,200.00	450.00	00'99	22.80	63.00	3,152.85	00.009	5.94	120.00	787.50	24.00	30.00
524.13	8,945.47	418.61		3,468.66	661.34				802.55	573.12		484.73			2,735.73	864.22	6,273.53		2,289.00	20,372.09	19.66	252.07	38.00		847.15		27.68	103.19	:	236.23	60.20
	:									:									:					:						:	-
Blumenthal Endowment	Bondy (Emil C.)	Boring Fellowship	Brainard (Edward Sutliff) Memorial	Bridgham (Samuel Willard)	Bunner Prize	Burgess (Annie P.) Scholarship	Burgess (Daniel M.) Scholarship	Burgess (John W.)	Butler (Nicholas Murray) Medal	Butler (Richard)	Campbell Scholarship	Carpenter (Clarence)	Carpentier (Edward R.)	Carpentier (H. W.)	Carpentier (James S.)	Casa Italiana Endowment	Castner (Hamilton Young)	Center Fund	Chamberlain (Joseph P.)	Chamberlain (Lydia C.)	Chandler (Charles Frederick)	Chanler Prize	Chapel Furnishing	Chapel Music	Civil Engineering Testing Laboratories Fund	Class of 1848 Scholarship	Class of 1869	Class of 1881 Arts and Mines	Class of 1885 Mines	Class of 1888 Arts and Mines	Class of 1889 Medal

ACCOUNTS	Debit Balances June 30,	Credit Balances June 30,	Received 1929-1930	Total Credits	Expended 1929-1930	Debit Balances June 30,	Credit Balances June 30,
Class of 1892 Arts and Mines Class of 1896 Arts and Mines Class of 1901 Decennial Class of 1902 Class of 1904 Class of 1904 Class of 1906 Class of 1920 Class of 1920 Class of 1927 Class of 1927 Collins (Perry McDonough) Columbia Alumni In Memoriam Columbia Hudson-Fulton Prize Columbia Hudson-Fulton Prize Columbia Hudson-Fulton Prize Columbia Diriversity Football Association Columbiana Endowment Convers (E. B.) Cortheal Crocked Crossy (William O.) Cross (A. K.) Currie (Calton C.) Curtis (Calton C.) Curtis (George William)		\$72.79 105.00 12.25 50.00 90.52 3,059.60 33.12 100.00 100.00 100.00 100.00 100.00 100.00 11,455.77 274.13 558.49 74,28.21 30.02 11,006.66 11,455.77 27,413 5	\$396.00 720.00 84.00 1,020.00 810.00 110.8.62 57.34 10.56 7.85 33,897.73 76.22 240.00 63.73 1,021.50 90,298.67 120.00 63.73 3,000.00 78.00	\$468.79 825.00 96.25 1,020.00 860.00 199.14 57.34 10.56 7.85 36,957.33 109.34 160.00 523.47 4,006.66 13,725.72 3,382.72	\$330.00 705.00 57.75 1,020.00 800.00 (*) 36.56 (*) 36.56 31,236.46 76.21 240.00 (*) 523.47 (*) 523.47 809.16 75,959.95 2,914.02		\$138.79 120.00 38.50 60.00 199.14 20.78 10.56 5,720.87 33.13 100.00 160.00 160.00 160.00 160.00 160.00 1770.83 89,166.93 187.94 13,725.72 3,382.72
Cutting (W. Bayard, Jr.)		27.71	9,600.00	9,627.71	8,000.00		1,627.71

-	4,330.00 866.00	53.50 204.44	136.81	8,827.77 14,131.53	282.94	1,189.19	:	962.11 1,817.10	140.68 4,959.73	1,913.77		:	424.22 50.00	53.00100.42	1,871.20	762.58	95.00 7.34	1,658.54 1,469.47	452,931.30	4	1,182.78 200.00	50.00 105.42	743.82 594.42	1,273.59	28.75	(5) 20,028.11	3,000.00	:		:	:	:	2,400.00 2,781.61
-	5,196.00	257.94	136.81	22,959.30	282.94	1,189.19	1,816.24	2,779.21	5,100.41	1,913.77	375.21	7,700.00	474.22	153.42	1,871.20	762.58	102.34	3,128.01		4,000.00	1,382.78	155.42	1,338.24	1,273.59	28.75	20,028.11 (6) 2	3,000.00	41.49	2,960.57	1,200.00	75.00	00.009	5,181.61
-	5,196.00	64.20	136.81	15,000.00	00.09	1,056.55	918.09	645.00	2,508.72	630.00	79.50	6,000.00	300.00	00.09	300.00	383.41	96.00	995.11	452,931.30	1,800.00	1,200.00	00.09	892.58	00.009	28.75	20,028.11	3,000.00	33.58	00.066	1,200.00	75.00	00.009	2,880.00
-		193.74		7,959.30	222.94	132.64	898.15	2,134.21	2,591.69	1,283.77	295.71	1,700.00	174.22	93.42	1,571.20	379.17	6.34	2,132.90		2,200.00	182.78	95.42	445.66	673.59				1.91	1,970.57				2,301.61
-		:	:																														
	Da Costa Professorship	Darling (Edward A.)	Dean (Bashford)	Dean Lung.	Deutscher Verein Prize	Deutsches Haus	De Witt (George C.)	Drisler Classical	Dunning (William A.)	Dyckman	Earle Prize	Eaton Professorship	Edson (Herman Aldrich)	Eimer (August O.) Medal	Einstein	Ellis (George Adams) Scholarship	Elsberg (Albert Marion)	Emmons (Samuel Franklin)	Eno (Amos F.)	Evans Fellowship	Evans (Henry) Scholarship	Ewell (Ella Marie) Medal	Faculty House Maintenance	Ferguson (David W. and Ellen A.)	Field (Otis W.)	Fine Arts Endowment	Fire Insurance	Fox (Richard H.) Prize	Garth Memorial	Gebhard	German Lecture	Gibson (William Henry)	Gilder (Richard Watson)

ACCOUNTS	Debit Balances June 30,	Credit Balances June 30,	Received 1929-1930	Total Credits	Expended 1929-1930	Debit Balances June 30,	Credit Balances June 30, 1930
Goldschmidt (Samuel Anthony)		\$54.38	\$1,425.88	\$1,480.26	\$1,250.00	:	\$230.26
Gottheil (Gustav)		671.58	1,059.92	1,731.50	921.25		810.25
Gottsberger (Cornclius Heeney)		2,390.91	570.00	2,960.91		:	2,960.91
Green Prize.		103.75	00.09	163.75	55.00		108.75
Hall (George Henry)		118.84	861.79	980.63	725.00	:	255.63
Hamilton (John Church)			00.09	00.09	26.03	:	33.97
Harriman (Reverend Orlando)		847.50	7,686.56	8,534.06	5,909.37		2,624.69
Harris (Ellen C.)		181.17	6,569.76	6,750.93	5,568.00	:	1,182.93
Haughton (Percy D.)		28.47	273.27	301.74	(6) 301.74	:	
Hepburn (A. Barton) Endowment		15,473,25	52,970.78	68,444.03	44,006.01		24,438.02
Hepburn (A. Barton) Professorship	1,515.02		00.000,6	7,484.98	5,984.98	:	1,500.00
Hervey (William Addison)		489.05	210.60	699.65	351.00		348.65
Huber (Frederick W., Jr.) Scholarship		108.33	300.00	408.33	250.00	:	158.33
Illig		144.43	138.00	282.43	120.00		162.43
Indo-Iranian			900.00	00.006	750.00		150.00
James (D. Willis)		435.00	00.000,9	6,435.00	5,435.00	:	1,000.00
Jefferson Statue Maintenance		501.90	108.00	06.609	00.00		519.90
Johnston (Edw. W. S.)		69.6	120.00	129.69	109.20		20.49
Kemp (James Furman)		675.00	1,200.00	1,875.00	1,000.00		875.00
Kennedy (John Stewart)			154,281.12	154,281.12	(7) 154, 281.12		
Lasher (John K.)	2.75		00.09	57.25	47.25		10.00
Law Library		1,620.94	315.00	1,935.94		:	1,935,94
Libbey (Jonas M.)		2,435.86	12,598.90	15,034.76	12,928.44		2,106.32
Loubat		5,003.07	420.00	5,423.07		:	5,423.07
Loubat Professorship			00.000,9	00.000,0	5,000.00		1,000.00
MacMahon (Katherine)		11.03	251.25	262.28	151.82		110.46
		_				_	

)	₹]	E	P	0	R	Т		0	F		Т	Н	Ε		Т	R	. E	C A	1 5	5 1	J :	R	Ε	R				55	•
50.00	122.24		337.35	1,829.68	420,01		420.01	72.16	10.00	17,367.24	637.50	20.00	20.10	714.17	2,042.39	1,149.65	1,916.67	30.50	102.50		550.43	1,554.17	6,906.48	364.62	156.16	164,196.63	161.81		140.00	13.782.21	
																												:			
250.00	128.99	738.80	1,819.70	2,250.00	438.66	122.67	438.66	262.50	50.00	7,716.09	525.00	100.00	100.50	837.50		756.42		152.50	117.50	(8) 18,483.57		750.00	786.25		70.00	(21)83,822.39		2,668.60	1,080.21	5,000.00	001101110
300.00	251.23	738.80	2,157.05	4,079.68	858.67	122.67	858.67	334.66	00.09	25,083.33	1,162.50	120.00	120.60	1,551.67	2,042.39	1,906.07	1,916.67	183.00	220.00	18,483.57	550.43	2,304.17	7,692.73	364.62	226.16	248,019.02	161.81	2,668.60	1,820.21	6,000.00	
300.00	180.00	738.80	1,647.00	1,478.75	420.00	00.09	420.00	63.00	00.09	14,597.22	00.009	120.00	120.60	744.03	450.00	1,318.57	1,916.67	183.00	120.00	18,483.57	342.00	00.006	3,557.50	00.09	84.00	60,743.73	161.81	2,668.60	00.006	6,000.00	2000
	71.23		510.05	2,600.93	438.67	62.67	438.67	271.66		10,486.11	562.50			807.64	1,592.39	587.50			100.00	:	208.43	1,404.17	4,135.23	304.62	142.16	187,275.29			920.21	17.869.81	
													:	:					:	:		:	:			:					
Maison Francaise	Manners (Edwin)	Mayer (Ralph Edward)	McClymonds Scholarship	McKim Fellowship	Megrue (Roi C.) Scholarship	Megrue (Stella C.) for Basketball	Megrue (Stella C.) Scholarship	Member of Class of 1885	Michaelis (Dr. Alfred Moritz) Prize	Miller (Nathan J.)	Mitchell (William)	Moffat Scholarship	Montgomery (Robert H.) Prize	Morris (Augustus Newbold)	Mosenthal Fellowship	Murray (George W.)	Viven (Robert Johnston)	Ordronaux (John)	Peele (Robert)	Pell (Mary B.)	Perkins Fellowship.	Perkins (Edward H. Jr.) Scholarship	Peters (William Richmond, Jr.)	Philolexian Centennial Washington Prize	Philolexian Prize	Phoenix Legacy	Prentice	President's House Furnishing and Equipment	Froudnt (Alexander Moncrief)	Pulitzer (Joseph) for School of Tournalism	

Pulitzer Prize. \$23,459.02 \$32,703.77 \$56,102.79 \$31,935.23	Total Expended Credits 1929-1930	Debit Balances June 30, 1930	Credit Balances June 30, 1930
ship. 9,999.44 17,006.25 1,10.21 136.80 98.58 390.00 1,465.86 401.16 1,465.86 130.26 1,113 285.00 1,113 285.00 1,113 285.00 1,113 38.86 60.00 1,112 311.60 1,113 38.86 1,112 311.60 1,113 30.00 1,115 0	\$31, 12, 24, 5, 5, 5, 6, 11, (10)	\$133.50	\$24,227.56 13,615.69 79.50 50.00 1,867.02 746.33 48.86 60 223.93 115.00 373.12 175.00 62.50 4,005.53 50.00 10,681.11 1,000.00 2,127.87 4,315.97 1,573.77 382.79

420.00	00'09	138.75	1,598.54		3,516.39		788.19	13.79	149.31	226.28		887.53	88.40			19.45	00:09	120.00	322,933.10			2,574.28	6,001.40	1,000.00	36.33	:	1,320.53	462.91	688.21	
		:	:		-	:		-	:		-			:		:	:	:					:	<u>:</u>		:	: : : :			
1,000.00	300.00	210.00	200.00	255.00	972.00	9,822.48	71.93	(12) 15.08	265.00	300.00	48,778.50			3,000.00	3,000.00	30.00	300.00	00.009	328,349.75 (13) 5,416.65			3	15.21	5,000.00	:	(15) 562.27	762.50	:	(16) 7,201.27	
1,420.00	360.00	348.75	2,098.54	255.00	4,488.39	9,822.48	860.12	28.87	414.31	526.28	48,778.50	887.53	88.40	3,000.00	3,000.00	49.45	360.00	720.00	328,349.75			7,758.65	6,016.61	00.000.00	36.33	562.27	2,083.03	462.91	688.21	
1,200.00	360.00	252.00	711.50	255.00	00.069	7,927.91	363.60	28.87	306.00	330.00	48,778.50	467.25	00.09	3,000.00	3,000.00	23.40	360.00	720.00	(Decrease) 40,735.34			4,060.75	1,935.00	00.000,0	26.89	562.27	915.00	202.74	67.50	
220.00		96.75	1,387.04		3,798.39	1,894.57	496.52		108.31	196.28		420.28	28.40			26.05			369,085.09			3,697.90	4,081.61		9.44		1,168.03	260.17	620.71	
											:											:						:		
Stokes (Caroline Phelps)	Stuart Scholarship	Toppan Prize	Trowbridge Fellowship	Turner (Charles W.)	Tyndall Fellowship	University Publication	Van Am Prize	Van Amringe Memorial	Van Amringe (Professor)	Van Buren Mathematical	Van Cortlandt (Robert B.)	Van Praag (L. A.)	Van Rensselaer (Mariana Griswold)	Waring (Mrs.)	Waring (Miss)	Wendell	Wheeler (H. A.) Scholarship	Wheeler (John Visscher) Scholarship	Special Investments, Account Unassigned Income	MRDICAL SCHOOL	TOOLING TURING	Blumenthal (George, Jr.)	Bull (William T.)	Carpentier (R. S.)	Carter (Herbert S.)	Cartwright	Clark Scholarship	Class of 1912	Cock (Thomas F., M.D.) Delafield.	

ACCOUNTS	Debit Balances June 30,	Credit Balances June 30,	Received 1929-1930	Total Credits	Expended 1929-1930	Debit Balances June 30,	Credit Balances June 30,
Louis (Lough B)		227 130 67	8308 056 30	8336 086 97	\$252 873 14		\$83.213.83
Devendorf (David M.)		111.87	390.00	501.87	325.00		176.87
Doughty (Francis, M.D.)		87.50	00.009	687.50	200.00	:	187.50
Draper Library	:		66.94	76'99			66.94
Ou Bois (Dr. Abram)	:	3,905.75	1,080.00	4,985.75	00.006	:	4,085.75
Gies (William J.)	:	:	1,899.71	1,899.71	(11) 1,899.70		.01
Grosvenor (Robert) Memorial	:	76.89	150.00	226.89	200.32		26.57
Harkness Funds		28,812.78	169,844.80	198,657.58	154,683.69		43,973.89
Harsen Scholarship	:	276.98	1,879.96	2,156.94	1,566.00	:	590.94
Hartley (Frank)		66.94	360.00	456.94	310.00		116.94
Hays (Mrs. Walter)	:	30.43	1,054.33	1,084.76	1,000.00		84.76
Hemingway Scholarship	\$1,047.88	:	4,933.98	3,886.10	2,922.77		963.33
Holt (L. Emmett)		740.10	1,459.75	2,199.85	1,956.47		243.38
Tuber (Francis) Scholarship	:	43.75	300.00	343.75	250.00		93.75
Tuber (Joseph and Christina)		29.96	259.86	356.53	344.82	:	11.71
Huber (Viola B.) Scholarship		43.75	300.00	343.75	293.75	:	20.00
acobi (Abraham) Library		68.79	293.24	362.03	283.29	:	78.74
acobi (Abraham) Scholarship		175.00	1,200.00	1,375.00	1,000.00		375.00
ames (Walter Belknap)		2,375.18	3,000.00	5,375.18	2,500.00		2,875.18
aneway (E. G.)		:	1,605.00	1,605.00	1,337.50	:	267.50
Coplik		781.25	00.006	1,681.25			1,681.25
		1,130.48	1,800.00	2,930.48	1,413.59	:	1,516.89
Markoe (Francis Hartman)		65.28	513.05	578.33			578.33
McAneny (Marjorie)			300.00	300.00	250.00		20.00
Medical School Equipment Fund		3,192.97	740.40	3,933.37		:	3,933.37
Meierhof (Dr. Harold Lee)		40.13	00.09	100,13	90.13		10.00
Miller (Guy B.)			00.009	00.009	200.00		100.00

REPO	RI	, С	F
4,990.52 500.71 25.00 1,958.87 2,010.47 212.99 11.91 513.30	\$133.50 \$1,099.532.00		
(29) 1,780.41 231.75 231.75 275.00 91.50			
,186.55 685.84 (20) 1,780.41 (20) 1,780.41 (20) 1,780.41 (20) 1,780.41 (20) 1,242.22 (217.50 (215.00 (216.30 (\$2,812.06 \$984,794.18 \$2,080,171.70 \$3,062,153.82 \$1,962,755,32	97,089.94	1,865,665.38
4,990.52 1,186.55 1,805.41 1,958.87 2,242.22 487.99 103.41 616.30	\$3,062,153.82	Less Transfers	
900.00 492.72 210.00 114.00 481.95 305.23 48.00 301.62	\$2,080,171.70	Less Transfer	
4,090.52 693.83 1,595.41 1,844.87 1,760.27 182.76 55.41 314.68	\$984,794.18		
	\$2,812.06		
Proudfit (Maria McLean) Simon. Smith Prize. Stevens Prize. Swift Memorial. Walson (Dr. William Perry) Weinstein (Alexander) Wheelock (George G.).			

INCOME OF SPECIAL ENDOWMENTS—NOTES

TRANSFERS

(1)	To Barnard Medal Gift	\$60.00
(2)	To Income Barnard Library Fund	975.00
(8)	To Principal Class of 1909 Flag Pole Fund	36.56
(4)	To Investment Columbia University Football Association Fund	523.47
(5)	To Principal Fine Arts Endowment Fund	20,028.11
(6)	To Principal Percy D. Haughton Memorial Fund	226.38
(7)	To Investment John Stewart Kennedy Fund	597.00
(8)	To Principal Mary B. Pell Fund	18,483.57
(9)	To Principal F. P. F. Rhodes Scholarship Fund	67.70
(10)	To Shoemaker Loan Fund	300.00
(11)	To Seligman Gift for Salary	226.46
(12)	To Principal Van Amringe Memorial Fund	15.08
(18)	To Income George Crocker Special Research Fund	2,916.66
(14)	To Blumenthal Loan Fund	2,030.37
(15)	To Principal Cartwright Lectureship Fund	562.27
(16)	To Principal Delafield Professorship Fund	7,201.27
(17)	To Principal William J. Gies Fellowship Fund	899.70
(18)	To Principal Class of 1927 Fund	7.85
(19)	To Principal W. Bayard Cutting Jr. Fellowship Fund	366.24
(20)	To Principal J. M. Smith Prize Fund	1,605.41
(21)	To University Land, Buildings and Equipment	39,960.84
	-	

\$97,089.94

GIFTS AND RECEIPTS FOR DESIGNATED PURPOSES

GIFTS AND RECEIPTS FOR DESIGNATED PURPOSES. RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING JUNE 30, 1930

Debit Credit Balances June 30, 1930	1,321.63	561.45	1,650.41	678.37		20,480.56	1,001.00	91.07	55,107.01	0.0007	50.00			91 251
Expended 1929-1930	15,450.00	(*) 33,250.00 1,938.55	8,066.04	:	400.00		14,065.63	1,568.93	2,832.86	350.00	20.00	400.00	175.00	0000
Total Credits	.04	33,250.00	9,716.45	678.37	400.00	20,480.56	15,066.63	1,660.00	57,939.87	1,050.00	100.00	400.00	175.00	1
Received 1929-1930	5,273.78	33,250.00	7,500.00	178.37	400.00	20,480.56	9,166.63	1,660.00	7,449.57				175.00	
Credit Balances June 30,	.04	2,500.00	2,216.45	500.00	26.11		5,900.00	:	50,490.30	1,050.00	100.00	400.00		
Debit Balances June 30, 1929								:						
ACCOUNTS	Advertising Research Laboratory Gift	Alumni Federation. Alumni Gift for Scholarships in Columbia College	American Manufacturers of Toilet Articles, Gift for Chemistry Research.	Anonymous Gift for American School of Indo-Iranian Research	Anonymous Gift for the Auditing Laboratory	Anonymous Gift for Institute of Cancer Research	Anonymous Gift for Lectures by Dr. Adler Anonymous Gift for Loud Speaker for McMillin	Theatre	Anonymous Gift for New Boat House	Anonymous Gift for J. W. Olstad Scholarship	Anonymous Gift for Prizes in the Auditing Laboratory.	Anonymous Gift for Scholarship in the School of Architecture	Anonymous Gift for Scholarship in Mechanical Engi- neering.	Anonymous Gift for Support of Columbia University

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350.00			100.00							577.27	2,194.74							629.00	500,00	24,372,44		647.71	111.62					221.17		2,914.00	
															50.00																
	500.00	1,000.00		191.62		14.17	175.00		837.36	884.74	305.26	3,990.00		4,800.00	350.00	5.37		181.00	500.00	14,063.57		4,117.28		00.000,9		2,000.00	5.200.00	25,000.00		(1) 3,755.88	
350.00	500.00	1,000.00	100.00	191.62		14.17	175.00		837.36	1,462.01	2,500.00	3,990.00		4,800.00	300.00	5.37		810.00	1,000.00	38,436.01		4,764.99	111.62	00.000'9		2,000.00	5.200.00	25,221.17		2,914.00 3,755.88	
	200.00	1,000.00					175.00		787.56	1,000.00	2,500.00	3,990.00		4,800.00	00.00				500.00	18,000.00		4,527.12		6,000.00		2,000.00		25,000.00			
350.00			100.00	191.62		14.17			49.80	462.01					240.00	5.37		810.00	500.00	20,436.01		237.87	111.62				5,200.00	221.17		3,755.88	
Anonymous Scholarship Gift for School of Mines, Engineering and Chemistry	Anonymous Gift for Special Fellowship	Anonymous Gift for University Extension Salaries	Anonymous Gift for William Welsh Vibert Memorial	Anthropology, Assistance in Research	Assistance and Equipment of Air Laboratory Gift-	Department of Public Health	Assistance in Fine Arts Gift	Auchincloss Gift for the Purchase of a Microphotometer	for the Department of Chemistry	Bakelite Research Fellowship	Barlow Gift for 175th Anniversary	Barnard College Residence Halls Service	Barnard College Summer School Gift for Women	Workers in Industry	Barnard Medal	school of Dentistry	Benjamin Gift for Students' Aid in University Ex-	tension	Blossom Scholarship Gift	Borden Company Gift for Food Chemistry	Bush Gift for Assistance and Supplies-Department of	Philosophy	Butler Library Furnishing Gift	Carnegie Corporation Gift for Library Fellowships	Carnegie Corporation Gift for Purchase of Huntington	Library	Carnegie Corporation Gift for Scholarships and Fellow-ships in the Arts.	Carnegie Corporation Gift for School of Library Service	Carnegle Corporation Gift for Training Librarians	Carpentier Gift for Hymane Education	

ACCOUNTS	Debit Balances June 30,	Credit Balances June 30,	Received 1929-1930	Total Credits	Expended 1929-1930	Debit Balances June 30,	Credit Balances June 30,
Casa Italiana Maintenance Gift. Casa Italiana Revolving Fund for Incidentals. Chandler Museum Maintenance Fund. Chaplel Organ Gift. Chaplain's Assistance Gift. Check Guarantee Gift. Chemical Engineering Equipment Gift. Chemical Engineering Equipment Gift. Chemistry, Gift for Repairs to Ward Truck. Civil Engineering Fire Testing Station. Class of 1888 Arts and Mines Gift for Flagpole at Baker Field. Class of 1896 Gift for Flag-pole at Baker Field. Class of 1901 Gift for Flag-pole at Baker Field. Class of 1905 Gift for Flag-pole at Baker Field. Class of 1905 Gift for Flag-pole at Baker Field. Class of 1905 Scholarship Gift. Class of 1905 Scholarship Gift. Class of 1912 Gift for Columbiana.		4,223.41 702.21 890.55 44.97 601.70 14.95 4,806.56 420.00	15,676.81 663.44 185.20 663.65 2,629.41 150.00 132.02 147.02 146.71 150.00 134.03 400.00	19,900.22 663.44 702.21 1,075.75 44.97 601.70 663.65 14.95 7,435.97 150.00 132.02 146.71 150.00 137.02 147.02 147.03 147.	18,274,40 657.53 25.50 44,97 217,00 663.65 14,95 147,03 132.02 147,02 146,71 146,71 146,73 14		1,625.82 5.91 702.21 1,050.25 384.70 7,435.97 2.97 3.28
Cochran (Alexander Smith) Gift for Research and Publication in the Department of Indo-Iranian Languages. Columbiana Gift. College of Dental and Oral Surgery Gift. Columbia College Scholarship Aid. Columbia House Maintenance Gift. Columbia House Maintenance Gift. Columbia University Club Scholarship Gift.		5,422.08 130.00 25.00 2.00 672.16	\$55.75 80.00 4,085.00 6,250.00	5,977.83 210.00 25.00 2.00 4,085.00 672.16 6,250.00	(*) 25.00 25.00 2,895.00 (*) 672.16 6,250.00		5,977.83

The Part of the Pa	_	2.30	_	2 30	2 30	_	
Commonwealth Fund for Research at Dental School		4.39	17.800.00	17.800.00	9.783.95		8,016.05
Corlite Corporation Gift for Research (Civil Engi-	:						
			3,675.00	3,675.00	3,675.00		
<u>:</u> ::	:	7.62	:	7.62	7.62		
-	:		1,298.78	1,298.78		:	1,298.78
Cutting Gift in Commemoration of 175th Anniversary.	:		12,500.00	12,500.00	11,811.50		688.50
<u>:</u> :	:	97.00	:	97.00			00.76
	2.00		2.00				
:	:	1.94		1.94	1.94		
<u>:</u> :	:		1,322.33	1,322.33		:	1,322.33
	:	4,921.42	6,185.00	11,106.42	5,496.70		5,609.72
Dodge Gift for Purchase of Books for the Library		91.10		91.10	62.89		23.21
Douglas (Mrs.) Gift for Furnishings and Fittings for							
:	:	1,000.00	:	1,000.00		:	1,000.00
- <u>:</u> - <u>:</u> :		17.36		17.36			17.36
- <u>:</u> -:	:		350.00	350.00	350.00		
			1,000.00	1,000.00	1,000.00		
:	:	292.05	2,291.66	2,583,71	2,067.67	:	516.04
:		1,210.28		1,210.28	637.00		573.28
<u>:</u> ::		352.95	:	352.95	(4) 352.95		
<u>:</u> :		108.18	400.00	508.18	9.50	:	498.68
:	:	3,394.15		3,394.15			3,394.15
:	:		1,000.00	1,000.00		:	1,000.00
General Education Board Gift for Council for Research					1		0
:		6,620.64	37,500.00	44,120.64	35,018.25	:	9,102.39
	:	112.00	:	112.00			112.00
- <u>:</u> ::	:	189.84		189.84	189.84		
:	:	124.62		124.62			124.62
:	***************************************		300.00	300.00	300.00		
Gillett (Dr. Henry W.) Gift for School of Dental and							
:		30,000.00		30,000.00			30,000.00
:		1,416.67	5,000.00	6,416.67	4,520.00		1,896.67
<u>:</u> ::			1 00.00±	*00.00			00.00#

ACCOUNTS	Debit Balances June 30,	Credit Balances June 30,	Received 1929-1930	Total Credits	Expended 1929-1930	Debit Balances June 30, 1930	Credit Balances June 30,
Harrison Gift for Student Aid in School of Architecture Harrison Gift for Work in Architecture			\$200.00	\$200.00	\$200.00		\$325.00
Marcellus Hartley Laboratory		\$2,086.46	2,600.00	4,686.46	644.71		4,041.75
Institute of CriminologyJames (Mrs. Walter B.) Gift for Purchase of Illustrative		4,902.94	14,117.60	19,020.54	14,781.26	:	4,239.28
Apparatus		195.89 200.00	200.00	195.89	193.00		200.00
Jones (Thomas Emery) Scholarship Gift—Mechanical Engineering			175.00	175.00	175.00		
Journal of Cancer Research Gift		1,490.30	3,481.86	4,972.16	4,034.47		937.69
Keeler (Mr. and Mrs. Miner S.) Gift for Institute of							
King City for Printing Old Minutes of College.		159.66	5,000.00	5,000.00 159.66	808.90		4,191.10 159.66
of Music. Laird (Dr. J. Packard) Fellowship Gift. Janiern Slides—Denatment of University Extension			1,000.00	1,800.00	1,000.00		300.00
Gift. Gift for Publication of Manuscripts		110.00	200.19	110.00	110.00		200.19
Law School Mimeographing Account Gift Lee Gift for Department of Indo-Iranian Languages		2,308.24 97.14	4.95	2,308.24	350.80		1,957.44
Lee (Mrs. Frederic S.) for Department of Romance Languages		44.18		44.18			44.18
Lee Second Gift for Department of Indo-Iranian Languages		4,415.65	220.78	4,636.43		:	4,636.43

	R E	PC	R	T	o	F	T	н	E		Т	R	E A	1 5	5 T	J	R :	E	R			67
3,500.00		385.45	419.22			11.60	3,415.30		.37	1,000.00		249.68	248.37	184.44					5.03			
																						111.83
1,500.00 44.00 7,214.53	1,394.79	135.41	37.95	912.00	2,374.85	.43	4,918.05	350.00	274.38		285.57	172.47		8,663.64	350.00	414.21	723.59	10.00	26.00	2.75	00 000	5,159.54
5,000.00 44.00 7,780.72	1,394.79	520.86	457.17 536.06	912.00	2,374.85	11.60	8,333.35	350.00	274.75	1,000.00	285.57	422.15	248.37	8,848.08	350.00	414.21	723.59	10.00	31.03	2.75	00 000	5,047.71
5,000.00		175.00	419.22	912.00	2,374.85		5,000.00	350.00	274.75					8,000.00	350.00	400.00	105.56	10.00			00 000	5,047.71
44.00	1,394.79	345.86	37.95			11.60	3,333.35			1,000.00	285.57	422.15	248.37	848.08		14.21	618.03	:	31.03	2.75		
Lee (Professor and Mrs. Frederic) Gift Lee Gift for Romanic Review Legislative Drafting Research Fund	Legislative Drafting Research Gift for Law School Library	Loeb (James) Gift	Library—Seth Low Junior College—Gift Low (William G.) Gift	Library Purchase of Books and Serials.	Library Staff Gift	Livingston Hall Furnishing Gift	Marcus Gift for Special Lecturer in Anthropology	Marcus (Joseph S.) Memorial Scholarship Gift	Matthews (Brander) for Dramatic Museum	McAlpin Gift for School of Dental and Oral Surgery	Metallurgical Research Laboratory Equipment	Metallurgical Research Fund	Miami Copper Co. Gift for Department of Mining and Metallurgy.	Milk Conference Board Gift	Mitchell Gift for Scholarship in the School of Business	Montgomery (Robert H.) Gift for the Library	Montgomery (Robert H.) Gift for School of Business	Moot Court Room Gift	Morris (Newbold) Gift for Law School Library Motion Pictures Producers and Distributors Gift for	Research in Psychology	National Research Council Gift for Crocker Labora-	Vational Tuberculosis Association Gift

ACCOUNTS	Debit Balances June 30, 1929	Credit Balances June 30, 1929	Received 1929-1930	Total Credits	Expended 1929-1930	Debit Balances June 30,	Credit Balances June 30,
New York State Library Association Gift for Scholarship in the School of Library Service. O'Donovan (Michael E.) Legacy for General Purposes of the University. Orehestra Gift. Osborne (Thomas Mott) Menorial Gift. Pennsylvania, Club of 1928 Gift for Scholarship 1929)		\$2,000.00	\$900.00	\$900.00 2,000.00 1,601.96 50.00	\$430.00		\$470.00
Purchasing Department Special Account.		150.00 5,000.00 2,000.00 1,451.94 1,000.00	72.70	150.00 5,000.00 2,000.00 1,524.64 1,000.00 592.14	50.00 (a) 5,000.00 264.41		100.00 1,735.59 1,524.64 1,000.00 592.14
Ramsey Gift for Tuition Fees in University Extension Renovation of 1882 Memorial Windows. Research in Social Science Roberts Gift for Law School Scholarships. Rockefeller Foundation Gift for Chemistry Equipment and Supplies.		114.00 75.00 500.00	36,460.57	114.00 75.00 36,460.57 500.00 150.00 7,500.00	30,900.31		75.00 5,560.26 500.00
Rockefeller (Laura Spelman) Gift for Social Research in France. Rockefeller (Laura Spelman) Gift for Social Science Research. Rockefeller (Laura Spelman) Gift for Study of Familial I am	\$2.674.43	25,471.15	101,300.00	2,770.43	2,078.95		691.48
Rockefeller (Laura Spelman) Memorial Gift for Research Work in Legal Education	5,000.00		2,000.00			:	

Credit Balances June 30,	\$278.59 3,039.10 109,250.00 74.50 10.00 7,921.18 2,000.00 350.00	785.37 1,484.94 83.78 1,475.00 188,445.83 1,797.02 7,042.71
Debit Balances June 30,		
Expended 1929-1930	\$25.32 190.00 354.92 5,823.43 4,001.80	2,622.72 191.13 4,687.62 250.00 29,994.25 58.72 3,702.03 9,717.27
Total Credits	\$278.59 3,039.10 109,250.00 25.32 74.50 190.00 10.00 354.92 13,744.61 6,001.80 350.00	3,408.09 1,676.07 4,771.40 1,475.00 250.00 188,445.83 29,994.25 5,499.05 16,759.98
Received 1929-1930	\$268.24 472.77 109,250.00 24.50 12,500.00 4,000.00 350.00	2,500.00 4,713.00 250.00 8,973.61 4,315.00 7,500.00
Credit Balances June 30,	\$10.35 2,566.33 25.32 5000 190.00 347.42 1,244.61 2,001.80	908.09 1,676.07 58.40 1,475.00 179,472.22 29,994.25 58.72 1,184.05 9,259.98
Debit Balances June 30,		
ACCOUNTS	Syllabus Fund for the School of Business. Syllabus Fund for University Extension Thompson (William Boyce) Gift. University Extension Book Fund Gift. University Extension Typewriter Equipment Gift. University Hall Gift. Vanderburgh (Frederick A.) Gift. Walker Gordon Research Gift. Willelmina (Queen) Professorship Gift. Williams (Bair S.) Gift. Wolff (Dr. and Mrs. Meyer) for Special Scholarship Assistance.	MEDICAL SCHOOL Adler Gift for School of Medicine. Anatomy Publication Gift. Animal Accommodation Gift. Anonymous Gift for Gies Fellowship. Anonymous Gift for Medical School Dormitory. Anonymous Gift for Tuberculosis Work at Bellevue Hospital. Association of the Alumni of the College of Physicians and Surgeons for Cleaning Portraits. Bacteriology Chemical Foundation Gift. Bacteriology—Milbank Infantile Paralysis Gift

	RE	POR	Т	O F	Т	нв	1 1	KE.	AS	UKI	S R		/ 1
581.93	7,131.38 563.50	1,831.37	117.98	291.00		904.30 208.40	6,577.04	19,181.01	1.29	6,269.33	00:06/	1,962.50	
										5,936,26			
1,918.07 931.12 375.00	12,868.62		331.05	7.74	36.40	1,095.70 295.59	12,972.17	25,233.33	25.99	1,578.51	250.00	8,250.00	15.04
2,500.00 2,000.00 375.00	20,000.00	1,831.37	331.05	291.00	36.40	2,000.00	19,549.21	44,414.34	27.28	Dr.	1,000.00	10.212.50	15.04
2,500.00 2,000.00 250.00	20,000.00	100			36.40	2,000.00	15,000.00	21,868.93	1.29	289.30	1,000.00	10,000.00	
125.00	563.50	1,831.37	331.05	291.00		103.99	4,549.21	22,545.41	25.99	4,450.00	99.99	212.50	15.04
										4,647.05			
Bacteriology—Matheson Encephalitis Gift	Biological Chemistry—Chemical Foundation Gift Biological Chemistry—Special Printing	Chemical Foundation Gift for Construction changes in the Department of Biological Chemistry	Station of the Columbia—Bellevue Rickets Gift	Crane Gift for Department of Diseases of Children Dermatology Special Research Gift.	Draper (Mrs. William K.) Gift for Bookcases in Medical School Library	Dyer Research Gift—Oto-LaryngologyFriedman Gift for Tuberculosis Investigation	General Education Board, for Department of Tropical Medicine	General Education Board, for Fractice of Medicine Salaries.	General Education Board, for Equipment of a Research Laboratory in Bio-Physics	Hall Site at New Medical Centre	Hess Gift for Oto-Laryngology Research Jenkins (Helen Hartley) Gift for Secretarial Service in	Lambert (Adrian) Gift Medical School Administration Motion Picture Gift	Medical and Surgical Equipment Gift

it Credit ces Balances 30, June 30, 1930		\$6,981.71 \$873,065.30	
Debit Balances June 30,			80 II T
Expended 1929-1930	\$643.70 250.00 2,154.37 3,674.97 7,780.78 7,306.76 (b) 1,346.31 2,208.34 12,671.26 3,482.80 500.00 9.14 597.60 242.15 1,112.78 1,112.78 1,112.78 1,112.78	\$1,605,424.0	903,740.73
Total Credits	\$643.70 250.00 2,183.55 4,291.66 7,544.25 7,960.96 1,346.31 900.35 2,800.00 141.68 18,173.47 4,760.57 500.00 9,14 2,246.31 29,888.69 1,465.33 1,465.33 1,465.33	\$838,560.88 \$2,471,507.66 \$1,605,424.07	Less Transfers
Received 1929-1930		- 11	Less Transfer
Credit Balances June 30,	\$643.70 694.25 4,960.96 1,346.31 900.35 2,500.00 141.68 5,173.47 2,160.57 500.00 9.14 1,899.36	\$13,478.47 \$1,646,425.25	
Debit Balances June 30,		\$13,478.47	
ACCOUNTS	Metals Research Gift. Meyer Gift for Research—Neurology. Neurology—Special Meningitis Gift. Neurology—Special Meningitis Gift. Ophthalmology—Special Research Gift. Pernicious Anemia Fund. Pharmacology—Eyridene Fund Psychiatry Social Service Gift. Research Fellowship in Medicine. Rockefeller Foundation Gift for Medical Mycology. Rosenthal Gift for Medical Research. Smith (Dr. Charles Hendee) Gift for Department of Diseases of Children. Special Instrument Fund. Special Instrument Fund. Special Tuberculosis Gift.—Pathology. Special Tuberculosis Gift. Wanger Melanin Gift, Pharmacology. Wanger Melanin Gift, Pharmacology.		

NOTES

TRANSFERS

(1)	To Income Henry Bergh Fund	\$3,755.88
(2)	To Dean's Fund for Needy Students	2.00
(3)	To Principal Deutsches Haus Endowment Fund	672.16
(4)	To Summer Session Gift for Entertainment	352.95
(5)	To Special Research Gift—Pathology	1,346.31
(6)	To Principal Prentice Fund for Rowing	5,000.00
(7)	To Anonymous Gift for New Boat-house	5.00
(8)	To University Land, Buildings and Equipment.	892,556.43
(9)	To Principal Columbiana Endowment Fund	50.00

\$903,740.73

SECURITIES OWNED FOR ACCOUNT OF SPECIAL ENDOWMENTS, GENERAL ENDOWMENTS AND DESIGNATED FUNDS

At June 30, 1930 Book Value			84.750.00		4,312.50	4,750.00		244,750.00	106 975 00	00:010:001	35,970.00	291,750.00		1,000.00	5,000.00		20,237.36
Decrease 1929-1930																	\$6.78
Increase 1929-1930			\$4.750.00		4,312.50	4,750.00									5.000.00		
At June 30, 1929 Book Value																	20,244.14
At June Book								\$244,750.00	00 476 901	190,013.00	35,970.00	291.750.00	•	1,000.00			20,244.14
At June 30, 1930	Bonds	SCHEDULE I—RAILROAD	\$5,000 Atchison, Topeka and Santa Fe Ry. Co.'s 4 per	5,000 Atlantic and Yadkin Ry. Co.'s 4 per cent First	Mortgage Bonds, due 1949	Show battunofe & Onio K.K. Co. S 4 per cent first. Mortgage Bonds, due 1948	250,000 Baltimore & Ohio R. R. Co.'s S. W. Division 5 per cent First Mortgage Extended Bonds, due	1950	200,000 Boston & Maine R. R. Co.'s 5 per cent First	50,000 Central New England Ry. Co.'s 4 per cent	50 Year First Mortgage Bonds, due 1961	300,000 Central Pacine Ry, Co.'s Guaranteed 5 per cent Bonds, due 1960	1,000 Central R. R. Co. of New Jersey 5 per cent	100 Year General Mortgage Bonds, due 1987	5,000 Chesapeake & Ohio Ky. Co.'s 4½ per cent General Mortgage Bonds, due 1992	20,000 Chicago, Indianapolis & Louisville R. R. Co.'s	5 per cent First and General Mortgage Bonds, Series A, due 1966.

194,962.50	104,396.61	74,762.48	50,000.00	100,000.00	76,075.00	149,750.00	293,000.00	9,515.00	51,208.14	198,217.24	202,479.16	284,887.50	249,347.50	74,625.00
	137.40								120.83	85.34	123.96			
										:				
194,962.50	104,534.01	74,762.48	50,000.00	100,000.00	76,075.00	149,750.00	293,000.00	9,515.00	51,328.97	198,302.58	202,603.12	284,887.50	249,347.50	74,625.00
200,000 Chicago, Rock Island & Pacific R. R. Co.'s 41/2 per cent Secured Bonds, due 1952	cent First and Refunding Mortgage Bonds, Series A, due 1962	F. C. S. 5 per cent accurating and improvement Mortgage Bonds, due 1963	cent 50 Year Gold Bonds, due 1938	FIRST MOTGAGE NOT BOOK NOT THE THE THE THE THE THE THE THE THE TH	Mortgage Bonds, Series A, due 1953	Prior Lien Bonds, due 1996	and Refunding Mortgage Bonds, due 1974 10,000 Grand Trunk Railway Co.'s 6½ per cent Equip-	ment Trust Certificates, due 1936	200,000 Great Northern Ry. Co.'s 5½ per cent General	Mortgage Gold Bonds, Series B, due 1952 200,000 Gulf, Mobile & Northern Ry. Co.'s 5 per cent	First Mortgage Bonds, due 1950	and Refunding Mortgage Bonds, due 1957	Refunding Mortgage Joint Bonds, due 1963	cent 25 Year Gold Bonds, due 1931

At June 30, 1930	At June Book	At June 30, 1929 Book Value	Increase 1929-1930	Decrease 1929-1930	At June Book	At June 30, 1930 Book Value
25,000 Missouri, Kansas & Texas R. R. Co.'s 4 per cent Prior Lien Bonds, due 1962			\$20,250.00		\$20,250.00	
225,000 Missouri, Kansas & Texas R. R. Co.'s 5 per cent	1					
S.000 Missouri Pacific R. R. Co.'s 4 ner cent General	\$243,550.00			\$24,355.00	219,195.00	
Mortgage Bonds, due 1975.			3,937.50		3,937.50	
300,000 Missouri Pacific Ry. Co.'s 5 per cent First and						
Refunding Mortgage Bonds, due 1977	298,906.25				298,906.25	
100,000 New Orleans & Northeastern Ry. Co.'s 4½ per cent Refunding and Improvement Mortgage						
Bonds, Series A, due 1952.	92,447.50				92,447.50	
3,000 New York Central & Hudson River Railroad						
Co.'s 6 per cent Conv. Debenture Bonds, due 1935	\$2,805.00				2,805.00	
New York, New Haven & Hartford Railroad Co.'s 6 per						
cent Conv. Debenture Bonds, due 1948	64,934.63			64,934.63		
200,000 Northern Pacific Ry. Co.'s 5 per cent Refunding						
and Improvement Mortgage Bonds, due 2047	196,533.75				196,533.75	
300,000 St. Louis & San Francisco Ry. Co.'s 4 per cent						
Prior Lien Mortgage Bonds, Series A, due 1950	87,343.75		169,050.00		256,393.75	
5,000 St. Louis & San Francisco Ry. Co.'s 5 per cent	0				00 000	
General Mortgage Bonds, due 1931	4,000.00				4,000.00	
Bonds, Series B, due 1950.	184,612.50			184,612.50		
6,000 St. Paul, Minneapolis & Manitoba Railroad						
Co.'s 4½ per cent Consolidated Mortgage Bonds,						
	5,975.00				5,975.00	
5,000 Seaboard Air Line Ry. Co.'s 4 per cent First						
Mortgage Bonds, due 1950	:		3,300.00		3,300.00	
305,000 Southern Ry. Co.'s 4 per cent Development and						
General Mortgage Bonds, Series A, due 1956	241,487.50	241,487.50	4,525.00		246,012.50	

									\$4,994,894.56						
4,600.00	200,460.12	19,537.50	110,919.52	4,637.50	201,172.68	89,000.00	4,150.00	87,440.00	\$4,994,894.56			\$194,625.00	295,593.75	4,050.00	98,250.00
	10.00		88,935.48		146.59				\$363,468.51						
4,600.00		4,837.50					4,150.00		\$233,462.50					\$4,050.00	
									\$5,124,900.57						
	200,470.12	14,700.00	199,855.00	4,637.50	201,319.27	89,000.00		87,440.00	\$5,124,900.57			\$194,625.00	295,593.75		98,250.00
5,000 Southern Ry. Co.'s (St. Louis Division) 4 per cent First Mortgage Bonds, due 1951	20,000 Tries a ranne in the construction of the 1977	gage R. R. and Grant Bonds, due 1947	111,000 virginian Ky. Co. s. 3 per cent rivet wortgage Bonds, Series A, due 1962.	Mortgage Bonds, due 1939.	Mortgage Bonds, due 1939	Refunding Mortgage Bonds, due 1976	Mortgage Bonds, due 1952	100,000 Wisconsin Central Kalifoad Co. s 4 per cent First Mortgage Bonds, due 1949		Bonds	SCHEDULE 11—PUBLIC UTILITY	\$200,000 Alabama Power Co.'s 5 per cent First and Refunding Mortgage Bonds, due 1951 303,000 American Telephone & Telegraph Co.'s 5 per	cent Debenture Bonds, due 1960	100,000 Alantic City Floring Co.'s 5 per cent first and	Refunding Mortgage Gold Bonds, due 1956

At June 30, 1930 Book Value	\$4,937.50	168,721.50	77,986.18	46,125.00	4,493.75	99,160.00	100,237.50	199,000.00	99,500.00	241.659.75	107,948.75	99,750.00	5,000.00
Decrease 1929-1930			\$124.14	:	:		12.50				:	:	
Increase 1929-1930	\$4,937.50				4,493.75								5,000.00
At June 30, 1929 Book Value			:					:				:	
At June Book		\$168,721.50	78,110.32	46,125.00		99,160.00	100,250.00	199,000.00	99,500.00	241,659.75	107,948.75	99,750.00	
At June 30, 1930	5,000 Bellows Falls Hydro-Electric Corp.'s 5 per cent First Mortgage Bonds due 1958	due 1968.	76,000 Brooklyn Union Gas Co.'s 6 per cent First Lien & Refunding Mortgage Bonds, Series A, due 1947	S0,000 Commonwealth Edison Co.'s 5 per cent First Mortgage Collateral Gold Bonds, due 1953	5,000 Continental Cas and Electric Corp.'s 5 per cent Debenture Bonds, Series A, due 1958	Mortgage Bonds, due 1949	200 Officering Design Co. S. per cent Critical Mole-	zoo, oo eengaa 1 ower Co. s 5 per cent First and Ketung- 100,000 Great Western Power Co.'s 5 nor cent First	Mortgage Bonds, due 1946	and Refunding Mortgage Bonds, Series A, due 1952.	109,000 Manhattan Railway Co.'s 4 per cent Consolidated Mortgage Gold Bonds, due 1990	100,000 Memphis Power & Light Co.'s 5 per cent First and Refunding Mortgage Bonds, due 1948	5,000 Milwaukee Electric Ry. and Light Co.'s 5 per cent Refunding and First Mortgage Bonds, Series B, due 1961

4,750.00	00 505 00	00.620,00	14,868.75				191,625.00			149,525.00		87,815.00			98,967.50			98,031.25		97,804.00			196,625.00		143,275.00		140,625.00		46,687.50	101,995.17
					\$159,533.28															82.00										86.75
4,750.00																														
								_																						
	00 525 00	00.020466	14,868.75		159,533.28		191,625.00			149,525.00		87,815.00			98,967.50			98,031.25		97,886.00			196,625.00		143,275.00		140,625.00		46,687.50	102,081.92
5,000 Mississippi Power and Light Co.'s 5 per cent First Mortgage Bonds, due 1957	100,000 Mississippi River Power Co.'s 5 per cent Gold	15,000 New York & East River Gas Co.'s 5 per cent	First Mortgage Gold Bonds, due 1945	New York Edison Co.'s 61/2 per cent First Lien and Re-	funding Mortgage Bonds, due 1941	200,000 New York Power & Light Corporation's 41% per	cent First Mortgage Gold Bonds, due 1967	150,000 Niagara, Lockport & Ontario Power Co.'s 5 per	cent First and Refunding Mortgage Bonds, Series	A, due 1955	100,000 Ohio Power Co.'s 5 per cent First and Refunding	Mortgage Bonds, due 1952	100,000 Pacific Gas & Electric Co.'s 5 per cent First	and Refunding Mortgage Bonds, Series D, due	1955	100,000 Pacific Gas & Electric Co.'s 5 per cent General	and Refunding Mortgage Bonds, Series A, due	1942	96,000 Pacific Gas & Electric Co.'s 51/2 per cent First	and Refunding Mortgage Bonds, due 1952	200,000 Pennsylvania Power & Light Co.'s 5 per cent	First and Refunding Mortgage Bonds, Series D,	due 1953	150,000 Portland Gas & Coke Co.'s 5 per cent First and	Refunding Mortgage Bonds, due 1940	150,000 Public Service of Northern Illinois, 5 per cent	First and Refunding Mortgage Bonds, due 1956	50,000 St. Paul Gas Light Co.'s 5 per cent General	Mortgage Gold Bonds, due 1944	100,000 St. Paul Gas Light Co.'s 5½ per cent General and Refunding Mortgage Bonds, due 1954

At June 30, 1930 Book Value		\$3,813,425.35					4,390.63
At June Book	\$4,900.00 195,530.00 197,000.00 96,737.50	\$3,813,425.35			\$2,000.00	1,490.00	\$4,390.63
Decrease 1929-1930		\$159,838.67					
Increase 1929-1930		\$23,231.25				\$490.00	\$490.00
At June 30, 1929 Book Value		\$3,950,032.77					\$3,900.63
At June Book	\$4,900.00 195,530.00 197,000.00 96,737.50	\$3,950,032.77			\$2,000.00	1,000.00	\$3,900.63
At June 30, 1930	5,000 Sioux City Gas & Electric Co.'s 6 per cent First Mortgage Bonds, due 1949		Bonds	SCHEDULE III—STATE AND MUNICIPAL	2,000 City of New York 4½ per cent Corporate Stock, due 1957. 500 City of New York 4 per cent Corporate Stock, due 1958.	1,500 City of New York 4½ per cent Corporate Stock, due 1960	

		\$128,990.63	4,925.00	104,096.55	92,488.75	187,975.00		2,813.25	2,990.00	95,125.00	43,725.00	1,990.00	100,000.00	199,875.00	189,500.00
				\$68.53			203,555.55	:					:		
			\$4,925.00								00.009				
		\$128,990.63		104,165.08	92,488.75	187,975.00	203,555.55	2,813.25	2,990.00	95,125.00	43,125.00	1,990.00	100,000.00	199,875.00	189,500.00
Bonds	SCHEDULE IV—INDUSTRIAL	129,000 Aluminum Company of America 5 per cent Sink- ing Fund Debenture Bonds, due 1952	Fund Debenture Bonds, due 1942	103,000 American Smelting & Refining Co.'s 5 per cent First Mortgage Bonds, Series A, due 1947	100,000 Armour & Company's 4½ per cent Real Estate First Mortgage Bonds, due 1939	ture Bonds, due 1942	Betnienem Steel Co. 8 3/2 per cent First and Kerunding Mortgage Bonds, due 1953	Mortgage Sinking Fund Bonds, due 1960	S,000 Chesebrough bunding Co.s o per cent ritst Mortgage Sinking Fund Bonds, due 1948	100,000 Chile Copper Co.'s 5 per cent Debenture Bonds, due 1947.	43,800 Columbia University Club's 5 per cent Mortgage Bonds, due 1942	cent First Mortgage Sinking Fund Fee Bonds, due 1938.	cent Debentius Bonds, due 1937	zoo, oo ruming Ou & Neuming Co. s 3 per cent Deben- ture Bonds, due 1937	ZOU,OUO Infand Steel Co.'s 4½ per cent First Mortgage Bonds, due 1978

At June 30, 1930 Book Value												\$1,822,758.46	
At June Book	\$49,406.87	100,275.84	166.67	1,400.00	4,975.00	101,078.74	3,000,00	198,500.00	3,900.00	4,150.00	201.411.16	\$1,822,758.46	
Decrease 1929-1930		\$6.41				49.04					30.02	\$203,709.55	
Increase 1929-1930	\$4,978.59									4,150.00		\$14,653.59	
At June 30, 1929 Book Value												\$2,011,814.42	
At June Book	\$44,428.28	100,282,25	166.67	1,400.00	4,975.00	101,127.78	3,000.00	198,500.00	3,900.00		201,441.18	\$2,011,814.42	
At June 30, 1930	49,000 Lackawanna Steel Co.'s 5 per cent First Consolidated Mortgage Bonds, due 1950	100,000 Lehigh Valley Coal Co.'s 5 per cent First and Refunding Mortgage Bonds, due 1974	Certificate of Indebtedness	Lions 5 per cent First Mortgage Gold Bonds, due 1937	Similing Fund Bonds, due 1943	ing and General Mortgage Bonds, due 1953 3,000 Savoy Plaza Corporation's 6 per cent First Mort-	gage Fee and Leasehold Sinking Fund Bonds, due	Fund Debenture Bonds, due 1947	4,000 State Kandooph Building 5.92 per cent First Mort- gage Sinking Fund Bonds, due 1942	Refunding Mostgage Bonds, due 1947	Mortgage Bonds, due 1978		

				\$106,200.00						8,256.56		
_		\$4,475.00	4,337.50	\$106,200.00			\$7,661.54	595.02		\$8,256.56		\$44,418.75 209,545.30 77,925.50
						\$1,000.00	651.45		40,117.17	\$41,768.62		
		\$4,475.00	4,337.50	\$8,812.50				\$595.02		\$595.02		
				\$97,387.50						\$49,430.16		
		\$97,387.50		\$97,387.50		\$1,000.00	8,312.99		40,117.17	\$49,430.16		\$44,418.75 209,545.30 77,925.50
Bonds	SCHEDULE V—FOREIGN	5,000 Oriental Development Co.'s 5½ per cent External Loan Gold Debenture Bonds, due 1958 111,500 State Mortgage Bank of Jugo-Slavia 7 per cent Sinking Fund Gold Bonds, due 1957	Mortgage Bonds, due 1953	SCHEDILE VI	UNITED STATES GOVERNMENT	United States of America First Liberty Loan 41/4 per cent Bonds, due 1932 to 1947.	7,000 United States of America Fourtn Liberty Loan 41% per cent Bonds, due 1938	Notes, due 1943 to 1947. United States of America 4½ per cent Treasury Bonds,	due 1947 to 1952	Stocks	SCHEDULE I—RAILROAD	500 shares Atchison, Topeka & Santa Fe Railroad Co, Preferred

At June 30, 1930 Book Value	137,839.15 129,628.25 5,110.12 510,240.01 110,625.00 131,047.60	\$2,045,707.18	\$1.00 45,500.00 77,875.00 54,543.75 44,650.00 (01,900.00 8,326.26	54.03 \$416,854.03
At	\$444,665.00 137,839.15 129,628.25 5,110.12 519,240.01 110,625.00 235,662.50	\$2,045,707.18	84,00 84,57 77,8 54,57 101,90	\$416,854.03
Decrease 1929-1930	\$597.00	\$75,597.00		
Increase 1929-1930				
At June 30, 1929 Book Value		\$2,121,304.18		\$416,854.03
At June Book	\$114,665.00 137,839.15 129,628.25 5,707.12 519,240.01 110,625.00 235,662.50 206,047.60	\$2,121,304.18	\$1.00 84,058.02 45,500.00 77,875.00 54,543.75 44,650.00 101,900.00	\$416,854.03
At June 30, 1930	4,500 shares Great Northern Railway Co. Preferred 1,183 shares Ilinois Central Railroad Co. Capital 1,000 shares Louisville & Nashville Railroad Co. Capital 75 shares Warunswick Ry. Co. Capital 4,920 shares Northern Pacific Railway Co. Capital 1,550 shares Southern Pacific R. R. Co. Common 1,525 shares Union Pacific Railroad Co. Common	Stocks SCHEDIII E 11_PITRI 1C 11TH 1TV	10 shares Burlington Gas Light Co. Capital (\$50 par value). 813 shares Cleveland Electric Illuminating Company Preferred. 500 shares Consolidated Gas Co. Preferred. 800 shares Duquesne Light Co. Preferred. 500 shares Bleetric Bond & Share Co. Preferred. 1,000 shares Manhattan Railway Co. M. G 1,000 shares Rochester Gas & Electric Co. Preferred. 166 shares Worcester Consolidated Street Railway Co. First Preferred.	

																										\$889,365.71
		\$123,262.50	119,312.50	115,387.50	6 212 20	6.600.00		8,000.00	117,572.50	293.76	117,750.00	51,423.50	7,377.20	3,570.00	971.43	108,225.00	1.00		35,954.50		1,687.50		2,650.00	1.00	63,012.50	\$889,365.71
							\$110,400.00																			\$110,400.00
																\$108,225.00			35,954.50							\$144,179.50
																										\$855,586.21
		\$123,262.50	119,312.50	115,387.50	6 212 22	6.600.00	110,400.00	8,000.00	117,572.50	293.76	117,750.00	51,423.50	7,377.20	3,570.00	971.43		1.00				1,687.50		2,650.00	1.00	63,012.50	\$855,586.21
Stocks	SCHEDULE III—INDUSTRIAL	1,000 shares American Can Co. Preferred	1,000 shares American Locomotive Co. Preferred 1000 shares American Smelting & Refining Co. Pre-	ferred	88 92/100 shares Consolidation Coal Co. of Mary-	50 shares Corn Products Refining Co. Preferred	Crocker Wheeler Electric Manufacturing Co. Preferred.	100 shares Cuba Cane Sugar Co. Preferred	1,000 shares Endicott, Johnson Co. Preferred	25 shares General Electric Co. "Special"	1,350 shares General Motors Co. Preferred	1,644 shares Glen Alden Coal Co. Capital	290 shares B. F. Goodrich Co. Preferred	110 shares Lawyers Mortgage Co. Capital	10 shares Manati Sugar Co. Common	525 shares Newmont Mining Corp. Common	13 shares Norfolk Country Club Common	410 shares Oliver Farm Equipment Co. Prior	Preferred	135 shares Rolfe Coal Mining Co. Common (\$25 par	value)	106 shares Rolfe Coal Mining Co. Preferred (\$25 par	value)	2 shares Samarkand, Capital	500 shares United States Steel Co. Preferred	

At June 30, 1930	At June Book	At June 30, 1929 Book Value	Increase 1929-1930	Decrease 1929-1930	At June 30, 1930 Book Value	30, 1930 Value
Stocks						
SCHEDULE IV—BANK AND TRUST COMPANY						
1 certificate Beneficial Interest Columbia Trust Co.	\$100.00				\$100.00	
	\$100.00	\$100.00			\$100.00	100.00
SCHEDULE V						
Miscellaneous						
Agreement with Greenberg, Publisher, Inc	\$1.00				3.00	
Co. New York Life Insurance Co. Policy	100,000.00				100,000.00	
Capital Stock I share New York Historical Society Stock. I share New York Society Library Stock. Stock in Afficial Competing	1.00				1.00	
Acceptances	193,279.05			\$116,421.91	76,857.14	
	\$294,795.05	\$294,795.05		\$116,421.91	\$178,373.14	178,373.14
		_				

Bonds and Mortgages				
On 362-370 Avenue "A," New York, at 6 per cent due 1940On Amsterdam Avenue and 167th Street. New York, at 6	\$79,000.00	\$41,000.00		\$120,000.00
per cent, due 1933. On 2479-2491 Amsterdam Avenue, New York, at 6 per	76,700.00		\$76,700.00	
Cent, due 1933On Southwest Corner Bailey Avenue and 230th Street.	71,000.00		2,000.00	69,000.00
New York, at 6 per cent, due 1935On 75-79 Barday Street. New York. at prevailing in-		125,000.00		125,000.00
terest rate, Open MortgageOn 26-28 Reaver Street New York at 51, nor cent due		36,000.00		36,000.00
1934	375,000.00			375,000.00
On 188 Bowery, New York, at 6 per cent, due 1931 On 113-115 Broad Street, New York, at 6 per cent	00'000'09			00.000.00
due 1930	308,000.00		7,000.00	301,000.00
Mortgage.	448,000.00			448,000.00
1930.	83,000.00		2,000.00	81,000.00
On 21 Claremont Avenue, New York, at 5 per cent, Open Mortgage	190,000.00			190,000.00
On 25 Claremont Avenue, New York, at 3½ per cent, on a 10 1935		250,000.00		250,000.00
On 33-35 Claremont Avenue, New York, Interest at prevailing rate, Open Mortgage	117,000.00		3,000.00	114,000.00
prevailing rate, Open Mortgage		150,000.00		150,000.00
On east side of West 6th Street Brooklyn New Vork at	15,680.00		320.00	15,360.00
5½ per cent, due 1933	4,000.00			4,000.00

At June 30, 1930	At June Book	At June 30, 1929 Book Value	Increase 1929-1930	Decrease 1929-1930	At June 30, 19 Book Value	At June 30, 1930 Book Value
On 812 Eighth Avenue, New York, at 5½ per cent, due 1934.	\$90,000.00			\$1,800.00	\$88,200.00	
On Eleventh Avenue between 18th and 19th Streets, New York at 6 per cent, due 1933	285,000.00				285,000.00	
On ook falle Sirect, Digits, INCW FORM at 272 per cells, On ook due 1932.	4,000.00				4,000.00	
On 890 Faile Street, Bronx, New York, at 5½ per cent, due 1933. On 890 Faile Street, Bronx, New York, at 5½ per cent,	4,000.00				4,000.00	
due 1933 On 51st Street and Eleventh Avenue. Brooklyn. New	00.000.00				0,000.00	
York, at 5½ per cent, due 1931	5,000.00				5,000.00	
On 131-145 Flatbush Avenue, Brooklyn, New York, at	369,000.00			10,000.00	359,000.00	
6 per cent, Open Mortgage	200,000.00				200,000.00	
On 106-108 Fullon Street. New York, at 5 per cent. due	33,750.00				33,750.00	
1930	373,920.00			373,920.00		
Open Mortgage	15,250.00			500.00	14,750.00	
6 per cent, due 1930	274,500.00			274,500.00		
vailing rate, Open Mortgage			\$5,500.00		5,500.00	
prevailing Rate, Open MortgageOn 609-13 Greenwich Street, 120-128 Leroy Street, New			24,000.00		24,000.00	
York, at 51/2 per cent, due 1933	225,000.00				225,000.00	

434,000.00	650,000.00	3,000.00	50,000.00	2,000.00	372,000.00	21,000.00	2,800.00	116,025.00	256,000.00	14,000.00	28,000.00	10,000.00	49,000.00	294,000.00	100,000.00	15,000.00
					8,000.00		:	2,550.00	30,000.00	3,000.00	1,000.00	:		00.000.00		
434,000.00	650,000.00															
		3,000.00	50,000.00	2,000.00	380,000.00	21,000.00	2,800.00	118,575.00	286,000.00	17,000.00	29,000.00	10,000.00	49,000.00	300,000.00	100,000.00	15,000.00
On 70 Haven Avenue, New York, interest at prevailing rate, Open Mortgage	Street, New York, at 6 per cent, due 1935 On Jefferson Avenue, Richmond Hill, New York, at 5½	per cent, due 1933. On 34 Laight Street and 13 Vestry Street. New York, at	5½ per cent, due 1934. On south side of Lexington Avenue. Brooklyn, New York.	at 5½ per cent, due 1933. On 800 Madison Avenue, New York, at 5½ per cent, due	On 51 Market Street, New York, at 51% per cent, due	1932.	Cent, Open Mortgage	On northwest corner of McCombs Place and 154th Street, New York at 6 per cent, due 1930	On Morningside Drive, 117th to 118th Streets, New York, at prevailing rate, Open Mortgage	On 50 Murray Street, New York, at prevailing interest rate, Open Mortgage	On 68 Murray Street, New York at prevailing interest rate, Open Mortgage	On 70 Murray Street, New York, at prevailing rate, Open Mortgage	On 136 Newark Avenue, Jersey City, New Jersey, at 6 per cent, due 1934	On northeast corner 134th Street and Riverside Drive, New York, at 6 per cent, due 1934	On 115th Street & Amsterdam Avenue, at prevailing in-	On 91-93 Fark Kow, INCW YORK, at 3.23 per cent, Open Mortgage

At June 30, 1930	At June 30, 1929 Book Value	June 30, 1929 Book Value	Increase 1929-1930	Decrease 1929-1930	At June Book	At June 30, 1930 Book Value
On 93 Park Row, New York, at 5½ per cent, Open Mortgage	\$15,000.00				\$15,000.00	
1934	250,000.00				250,000.00	
interest rate, Open MortgageOn northeast corner Riverside Drive and Payson Avenue.	163,000.00			\$17,000.00	146,000.00	
New York, at 5½ per cent, due 1932On 117-125 Seventh Avenue, New York, at 6 per cent.	291,000.00			9,000.00	282,000.00	
	209,000.00	:		2,000.00	207,000.00	
On 28 South Street, New York, at 51/2 per cent, due 1934	25,000,00				25,000.00	
On 53 South Street, New York, at 5½ per cent, due 1930 On 19 South William Street, New York, at 5½ per cent,	25,000.00			25,000.00		
			\$66,000.00		66,000.00	
On 289-291 Initd Avenue and 205-215 East 22nd Street, New York, at 5½ per cent, due 1933	247,500.00			5,000.00	242,500.00	
On 780-786 Twelfth Avenue, New York, at 51/5 per cent,	000000			. 00000	00 000 127	
On 78-80 Walker Street, New York, at 5½ per cent, due	483,000.00			10,000,00	473,000.00	
	125,000.00				125,000.00	
cent, due 1935	88,000.00			2,000.00	86,000.00	
On West Broadway, Reade to Duane Street, New York, at 51% ner cent. due 1931	250 000 00		,	250 000 00		
On 745-747 East 6th Street, New York, at 51/2 per cent,						
On 133-137 East 16th Street, New York, at 51% ner	33,000.00			33,000.00		
	106,000.00				106,000.00	
On 3-7 East 27th Street, New York, at 51/2 per cent, due	00 000 010			00 000 00	000000	
	7/0,000.00			30,000.00	740,000.00	

	00		8	8	00	00	00	8	00	00	-:-	8	8	00	8	00
225,000.00	69,000.00		60,000.00	325,000.00	6,000.00	71,625.00	140,000.00	345,000.00	93,850.00	350,000.00		355,000.00	267,500.00	100,000.00	290,000.00	460,000.00
	2,000.00	286,250.00		5,000.00		375.00		10,000.00	1,500.00		455,000.00	10,000.00	11,500.00			
														\$100,000.00		460,000.00
225,000.00	71,000.00	286,250.00	00'000'09	330,000.00	00.000.00	72,000.00	140,000.00	355,000.00	95,350.00	350,000.00	455,000.00	365,000.00	279,000.00	,	290,000.00	
On 20 East 31st Street and 15-19 East 30th Street, New York, at 5½ per cent, due 1931 On 408-418 East 48th Street, New York, at 6 per cent,	due 1934.	On 1 East usin Street, New York, at 372 per cent, due 1931	On 522-24 East 81st Street, New York, at 6 per cent, due 1933.	On 309-27 East 94th Street, New York, at 5½ per cent, due 1933.	1932. 10/10 Street, New York, at 3/5 per cent, due 1932.	Open Mortgage.	On 130-140 West 23rd Street, New York, at 3.75 per cent, due 1933	due 1930.	due 1933	On 6-8 West 32nd Street, New York, at 5½ per cent, due 1934.	On 234-8 West 33th Street, New York, at 5/5 per cent, due 1929.	due 1932	On 19-21 West 30th Street, New York, at 6 per cent, due 1932	On 542-548 West 30th Street, New York, at 523 per cent, due 1934.	due 1923	due 1934

At June 30, 1930 Book Value																			\$13,920,153.81
At June Book		\$220,000.00	185,000.00	45,000.00	207,000.00	175 000 00		250,000.00	21 000 00	0.000.00	173,000.00	225,000.00		142,500.00	364,000.00	00 000 70	00,000,00	380,793.81	\$13,920,153.81
Decrease 1929-1930		\$7,500.00	:		4,500.00							-				00 002	00.000	839,308.26	\$2,818,723.26 \$13,920,153.81 \$13,920,153.81
Increase 1929-1930			\$63,350.00						21 000 00	03,000,00	86,000.00			142,500.00	238,000.00				\$2,905,350.00
At June 30, 1929 Book Value																			\$13,833,527.07 \$13,833,527.07
At June Book	-	\$227,500.00	121,650.00	45,000.00	211,500.00	175 000 00	00:000	250,000.00			87,000.00	225,000.00	,		126,000.00	0000	86,300.00	1,220,102.07	\$13,833,527.07
At June 30, 1930	On 341-343 West 38th Street, New York, at 5½ per cent,	On 264-8 West 41st Street, New York, at 6 per cent,	due 1932	On 28.40 Word 48th Street Now York at \$1,5 per cent	due 1930.	On 13-15 West 60th Street, New York, at 5 per cent, due	On 243-249 West 67th Street and 248-250 West 68th	Street, New York, at 51/2 per cent, due 1931	On 403 West 115th Street, New York, interest at pre-	On 404 West 116th Street, New York, at prevailing inter-	est rate, Open Mortgage	On 420 West 116th Street, New York at 5½ per cent, due 1932.	On 420 West 116th Street, New York, interest at pre-	vailing rate, Open MortgageOn 424-430 West 116th Street, New York, at prevailing	interest rate, Open Mortgage	On 153rd Street, west of Broadway, New York at 6 per	On Properties in Upper Estate, New York, at prevail-	ing rate, Open Mortgage	

			\$11,000.00		•		_	•		, 11								
	\$10,000.00	1,000.00	\$11,000.00						\$2,000.00	2.500.00		1,000.00	20,000.00	5,000.00		3,000.00		1,000.00
						0000	\$4,300.00	2,000.00										
			\$11,000.00															
	\$10,000.00	1,000.00	\$11,000.00			00 000	\$2,300.00	2,000.00	2,000.00	2.500.00	0000	1,000.00	20,000.00	5,000.00		3,000.00		1,000.00
Guaranteed Certificates	By Title Guarantee & Trust Co. of New York, at 5½ per cent, due 1932	cent, due 1930		Participation Certificates	(Guaranteed by Lawyers Mortgage Co.)	On 100 West 144th Street, New York, at 5½ per cent,	On north side of East Tremont Avenue, near Vyse Ave-	nue, Bronx, New York, at 51/2 per cent, due 1929.	On south side of Ferry Avenue, near 205th Street, Bronx, New York, at 5½ per cent, due 1931	On west side of Morris Avenue, near Burnside Avenue, Bronx, New York, at 51% ner cent, due 1931	On west side of Fulton Avenue, near East 172nd Street,	Dr west side of Rochambeau Avenue, near East Gun Hill	Road, Bronx, New York, at 5½ per cent, due 1932	nue, Bronx, New York, at 5½ per cent, due 1931	On south side of West 182nd Street, near Jerome Avenue,	Bronx, New York, at 51/2 per cent, due 1932	On northeast corner Gerard Avenue and East 164th	Street, Bronx, New York, at 51/2 per cent, due 1932

At June 30, 1930 Book Value		\$52,500.00	\$28,263,979.43
At Jun Bool	\$13,000.00	\$52,500.00	
Decrease 1929-1930		\$4,500.00	
Increase 1929-1930		\$57,000.00	
At June 30, 1929 Book Value		\$57,000.00	\$28,827,632.59
At June Book	\$13,000.00	\$57,000.00	
At June 30, 1930	On Thayer Street and Sherman Avenue, New York, at 5½ per cent, due 1932		

SECURITIES SUMMARY

30, 1930 Value	\$10,749,925.56	3,352,026,92 178,373.14 13,920,153.81 11,000.00 52,500.00	\$28,263,979.43	\$26,658,421.44 818,537.34 895.02 780,973.46 5,152.17	\$28,263,979.43
At June 30, 1930 Book Value	\$4,994,894.56 3,813,425.35 4,390.63 1,822,758.46 106,200.00 8,256.56	2,045,707.18 416,854.03 889,365.71 100.00			\$28,263,979.43
Decrease 1929-1930	\$363,468.51 159,838.67 203,709.55 41,768.62	75,597.00 110,400.00 116,421.91 2,818,723.26 4,500.00	\$3,894,427.52	\$488,511.80 58,587.31 63,905.14	\$709,780.98
Increase 1929-1930	\$233,462.50 23,231.25 490.00 14,653.59 8,812.50 595.02	144,179.50	\$3,330,774.36	\$146,127.82	\$146,127.82
At June 30, 1929 Book Value	\$11,237,466.05	3,93,844.42 294,795.05 13,833,527.07 11,000.00 57,000.00	\$28,827,632.59	\$27,146,933.24 877,124.65 64,800.16 634,845.64 103,928.90	\$28,827,632.59
At June Book	\$\$,124,900.57 3,950,032.77 3,900.63 2,011,814.42 97,387.50 49,430.16	2,121,304.18 416,844.03 855,586.21 100.00			\$28,827,632.59
At June 30, 1930	Schedule I—Railroad Schedule II—Public Utility Schedule III—State and Municipal Schedule IV—Industrial Schedule V—Foreign Government Schedule VI—United States Government	STOCKS Schedule I—Railroad. Schedule II—Public Utility Schedule III—Industrial. Schedule IV—Bank and Trust Co MISCELLANEOUS. BONDS AND MORTGAGES GUARANTEED CERTIFICATES. PARTICIPATION CERTIFICATES.	Total	DISTRIBUTION Special Endowments—Principal Special Endowments—Income Student Loans Gifts General Endowment	Total

REDEMPTION FUND

Balance in Fund at June 30, 1929		
Balance in Fund at June 30, 1930		\$600,000.00
Composed of: BONDS		
\$500 United States of America Fourth Liberty Loan 41/4 per cent Bonds, due 1938.	\$500.00	
89,000 Virginia Railway Company 5 per cent First Mortgage Bonds, Series A, due 1962	89,000.00	
BONDS AND MORTGAGES		
On Amsterdam Avenue and 167th Street, New York at 6 per cent, due 1933	72,700.00	
York, at 5½ per cent, due 1933 On West Broadway, Reade to Duane Street, New York, at 5½ per	205,000.00	
cent, due 1931	100,000.00	
On 745 East 6th Street, New York, at 5½ per cent, due 1931	32,400.00	
On 412-422 East 90th Street, New York, at 6 per cent, due 1930	100,100.00	
Cash	-	599,700.00 300.00

\$600,000.00

UNIVERSITY LAND BUILDINGS AND EQUIPMENT

UNIVERSITY LAND, BUILDINGS AND EQUIPMENT

, 1930	P.O. 500 P.P.O. 0.8	17.504,110,24	563,193.40	503,656,95		998,028.69		341 651 10	1,500.00	1,850.98	30,040.00		315,586.33	3,166.44	592,267.00
At June 30, 1930	\$2,022,440.06	2,000,000.00			736,656.65		339,821.42	1,829.68				315,526.06			
Deductions 1929-1930						,		\$2 861 75							1,500.00
Additions 1929-1930										65 00.4 00	:				
At June 30, 1929	0.000	77.507.07.07.07.07.07.07.07.07.07.07.07.07.0	563,193.40	503,656.95		998,028.69		341,651.10	1,500.00	1,850.98	30,040.00		315,586.33	3,166.44	593,767.00
At June	\$2,022,440.06 55,464.15	2,000,000.00			736,656.65		339,821.42	1,829.68				315,526.06			
	Land: 114th to 116th Streets, Amsterdam Ave. and Broadway. Improvements to Grounds	116th to 120th Streets, Amsterdam Ave. and Broadway. Improvements to Grounds	116th Street, north side, Morningside Drive to Amsterdam Avenue.	117th Street, south side, Morningside Drive to Amsterdam Avenue	Baker Field, Broadway, 218th St. and Harlem Ship Canal Improvements and additions to Baker Field		Avery Library Building: Construction	Equipment	Baker Field Boat House Equipment.	Baker Field Fence	Boat House at Highland, N. V.	Casa Italiana: Construction. Equipment.		Chemical Engineering Building: Construction	Dental and Oral Surgery; (School of): Construction and Equipment

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	18,465.53	165,824.65	13,402.62		304,850.97		335,012.85			411,108.45			386,274.86			510,728.75			367,755.27			650,502.33			995,332.16			1,851,669.88
	164,844.65			20,775,47		299,725.43	25.107400	362,610.91	48,497.54		352,666.66	33,608.20		486,572.26	24,156.49		337,202.65	30,552.62		536,427.47	114,074.86		780,951.30	214,380.86		1,661,332.39	190,337.49	
		•	:								:	:	,					:	·			•	:	:	•		:	
												83.82						83.82						6,449.92			6,644.19	
	18,465.53	165,824.65	13,402.62		304,850.97		335.012.85			411,108.45		j	386,191.04			510,728.75			367,671.45			650,502.33			988,882.24			1,845,025.69
	164,844.65			284,075.50		299,725.43	33,401,42	362,610.91	48,497.54		352,666.66	33,524.38		486,572.26	24,156.49		337,202.65	30,468.80		536,427.47	114,074.86		780,951.30	207,930.94		1,661,332.39	183,693.30	
	Equipment.		Cquipment	Construction		Construction	Pdurbment	Construction	Equipment		Construction	Equipment		Construction	Equipment		Construction	Equipment		Construction	Equipment		Construction	Equipment		Construction	Equipment	
Crocker Research Building:	X-Ray Equipment Earl Hall: Construction and Equipment. Trophy Room Equipment		East Hall: Alterations and Equipment	Engineering Building:		Faculty House:		Fayerweather Hall:			Furnald Hall:			Hamilton Hall:			Hartley Hall:			Havemeyer Hall:			Havemeyer Annex:			John Jay Hall:		

		At June 30, 1929	0, 1929	Additions 1929-1930	Deductions 1929-1930	At June 30, 1930	30, 1930
Johnson Hall:	Construction	\$1,145,942.25				\$1,145,942.25	
	Equipment	92,201.06				92,201.06	
	Commons Equipment	27,291.32	61 365 424 62	\$463.19		27,754.51	61 265 807 82
Kent Hall:	Construction	\$588,636.91	00.101,002,10			\$588,636.91	70:140,007,19
	Post Office	1,164.50	000000			1,164.50	6500 001 11
Library Building:	Construction	1,108,461.08	\$589,801.41			1,108,461.08	\$369,601.41
	Equipment	103,038.31				103,038.31	
	Alterations	10,000,00	1.258.099.39				1,258,099,39
Livingston Hall:	Construction	333,607.50				333,607.50	
	Equipment	30,668.23		\$83.83		30,752.06	
			364,275.73				364,359.56
Philosophy Building:	Construction		349,694.66				349,694.66
Physics Building:	Construction	1,282,809.17				1,282,809.17	
	Equipment	262,742.72		4,226.90		266,969.62	1 1 1
Description of the Description		106 830 87	1,545,551.89			196.830.82	1,549,778.79
ricaldent a mouse.	Furnishing	24,410.17				24,410.17	
			221,240.99				221,240.99
St. Paul's Chapel:	Construction	266,676.54			:	266,676.54	
	Equipment	57,090.62				57,090.62	2 0 0
;	•		323,767.16			1000 000	323.767.16
Schermerhorn Hall:	Construction	483,808.71		50 684 12		117 574 38	
	Equipment:	07:060410	541.698.97	74.			601,383.09
Schermerhorn Hall Extension	Schermerhorn Hall Extension: Construction		315,743.09	627,630.18			943,373.27
	Equipment		2,795,35	245,188.12			247,983.47

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2 440	1,071,535.13	305,501.21			1,400,966.55	34,624.72 24,789.89	24,789.89	31,333.33	37,712.65	265,388.90	2,000.00	390.00	10,000.00	2,000.00	5,000.00	15,000.00
1,000,820.29	534,863.38 28,637.83	305,506.29 19,760.85	988,431.53 28,341.01 310,499,10	13,866.30 43,149.23 16,679.38												
			7,469.94	339.14			:		21 601 88	:						
7.0	1,0/1,333.13	303,301.21			1,388,935.85	34,624.72 24,789.89	24,789.89	31,333.33	37,712.65	265,388.90	2,000.00	390.00	10,000.00	2,000.00	5,000.00	15,000.00
1,000,820.29	534,863.38 28,637.83	305,506.29 19,760.85	988,431.53 20,871.07 307,331.56	13,527.16 43,149.23 15,625.30												
Construction	Construction	Construction	Construction	Power House Conduits Gymnasium Equipment		(Maison Francaise)	(Dean's Residence)	(Columbia House)	No. 423 West 117th Street (Deutsches Haus)	(trome stary)		Class of 1883 Mines—Setting Bust of Professor Egleston		Class of 1888 Gates.	Class of 1889 Mines "Hammerman"	
School of Business:	School of Journalism:	School of Mines Building:	University Hall:			No. 411 West 117th Street (Maison Francaise) No. 413 West 117th Street (Chaplain's Residence).	No. 415 West 117th Street (Dean's Residence)	No. 419 West 117th Street (Columbia House) No. 421 West 117th Street	No. 423 West 117th Street	No. 437 West 117th Street.	Class of 1880 Gates	Class of 1883 Mines—Settin	Class of 1885 Sun-Dial	Class of 1888 Gates	Class of 1889 Mines "Hammerman"	Class of 1897 Boat House

	At June 30, 1929), 1929	Additions 1929-1930	Deductions 1929-1930	At June 30, 1930	0, 1930
Class of 1893 Chapel Bell		\$5,114.84				\$5,114.84
Class of 1906 Clock		1,159.16				1,159.16
Fountain of the God Pan.		12,013.50				12,013.50
Granite Posts for Class of 1891 Gates		\$2,563.00				\$2,563.00
Hamilton Statue		10,900.00				10,900.00
Lighting University Grounds		1,035.00			:	1,035.00
Portrait of President Butler		9,880.57			:	9,880.57
Seth Low Memorial Tablet		1,010.00				1,010.00
Marcellus Hartley Research Tablet		417.00				417.00
John B. Pine Tablet		1,374.00				1,374.00
Munroe Smith—Tablet		1,840.00				1,840.00
Van Amringe Memorial		20,738.34				20,738.34
Removal and Re-erection of Fence		15,371.71				15,371.71
Manor House, Improvements and Furnishings		8,951.94				8,951.94
Hegeler Furnace	:	2,000.00				2,000.00
Model of Buildings and Grounds		19,972.70				19,972.70
Model of Coal Mine		250.00				250.00
Braden Mine Models		1,700.00				1,700.00
Repairs and Equipment of Old Buildings:						
East Hall		5,113.34				5,113.34
South Court Fountains		4,932.88				4,932.88
Students Army Training Corps Equipment		850.00				820.00
Botany and Agricultural Greenhouses	:	16,486.50				16,486.50
Optical Instruments		7,100.00				7,100.00
Assessments:					_	
Boulevard Sewer	\$2,579.90				\$2,579.90	
129th Street Sewer.	749.25				749.25	
Opening and acquiring title to Addition to Riverside Park.	8,168.98				8,108.98	
Opening 116th Street	2,882.77	_			7,788,7	

	REP	ORT OF	THE TRE	ASU	RER	103
57 274 84	£ #	AT-66010		7,537,667.33	\$33,900,879.00	\$33,862,737.21
38,033.59 4,814.55 45.80	30,382.79 37,316.40	628,969.31 33,896.20 1,400.00 14,938.07	399,263,94 867,062.30 529,647.05 9,068.47 3,604,732.40 54,230.25 605,375.02	750,000.00	36,261.63 1,694.66 95.50 90.00	.,
					\$4,361.75	
			\$3,163.38 7,114.12	953.42	\$32,903,755.16 \$1,001,485.59 31,080.86	
20 870 77	372,058.68 372,058.68 107,140.39	77.60		7,527,389.83		\$32,872,674.30
38,033.59 4,814.55 45.80	30,382.79	628,969.31 33,896.20 1,400.00 14,938.07	39,084.92 399,263.14 867,062.50 529,647.05 9,068.47 3,601,569.02 54,230.25 598,260.90	750,000.00	29,296.20 1,694.66	
Opening 120th Street. Opening Riverside Drive and Parkway. On 116th Street for Inwood Park.	Expenses during construction and removal to New Site—(Net) Outside Street Work. Vaults: East. West.	Medical School: Buildings Equipment Library Roof Laboratory	School of Dentistry Sloane Hospital for Women New Site. New Siedence Hall Site. Improvements to New Site. New Buildings. New Equipment. School of Dental and Oral Surgery.	Sloane Hospital and Vanderbilt Clinic Buildings and Equipment	Less Reserve for Depreciation of Commons Equipment. Less Reserve for Hartley Hall Less Reserve for Baker Field Grandstands. Less Reserve for John Jay Hall.	

OTHER PROPERTY

	At June 30, 1929	Increase	Decrease and Depreciation	At June 30,
Ametordam Avonno and 115th Streot	\$106.420.07			\$106.420.07
Build		\$46,493.90	\$4,051.26	42,442.64
	1.00	:	:	1.00
503-11 BroadwayLand and Building	672,776.66	99.85	11,611.09	661,265.42
21 Claremont AvenueLand and Building	309,972.85		14,611.96	295,360.89
21 Claremont AvenueEquipment	3,622.58		:	3,622.58
T	441,694.15		26,558.44	415,135.71
29-35 Claremont AvenueEquipment	8,757.65		:	8,757.65
39-41 Claremont AvenueLand and Building	432,048.14		3,655.44	428,392.70
237 Greenwich StreetBuilding and Lease		6,136.20		6,136.20
252-4 Greenwich StreetBuilding and Lease		24,178.70		24,178.70
70 Haven AvenueLand and Building		435,954.05	855.39	435,098.66
44 Murray StreetBuilding and Lease		408.42		408.42
46 Murray StreetBuilding and Lease		442.89		442.89
50 Murray StreetBuilding and Lease	18,694.40		3,443.24	15,251.16
68 Murray StreetBuilding	29,341.02		863.24	28,477.78
70 Murray StreetBuilding	10,094.09			10,094.09
72 Murray StreetBuilding	5,522.64		240.12	5,282.52
460-64 Riverside DriveLand and Building	573,603.35		16,737.43	556,865.92
18 East 16th Street.	167,109.75			167,109.75
41 West 47th StreetLand and Building	61,750.72			61,750.72
403 West 115th StreetLand and Building	195,023.70	2.85	702.04	194,324.51
404 West 116th StreetLand and Building	182,551.84		3,559.07	178,992.77
420 West 116th StreetLand, Building and Equipment		374,170.55	:	374,170.55
424-30 West 116th StreetLand and Building	383,242,95	50.00	6,985.85	376,307.10
405 West 117th StreetLand and Building	25,870.57		340.00	25,530.57

IX .	EFURI	O F
262.12 22,128.91 309.51 23,172.09 280.11 22,525.32 1,691.88 760,979.83 2,400.00	\$149,216.38 \$\$,250,627.12 81,320.00 4,949,089.45 1,270.00 75,000.00 4,500.00 4,500.00	\$10,660,643.64
8.8	::	\$10,004,281.54 \$888,168,48 \$231,806.38 \$10,660,643.64
22,391.03 23,481.60 22,805.43 21,691.88 791,038.02 2,400.00	\$887,937.41	\$888,168.48
,	\$4,5 5,0 3	\$10,004,281.54
407 West 117th Street. 431 West 117th Street Land and Building 433 West 117th Street Land and Building 435 West 117th Street Land and Building 1475 Street, Morningside Drive and 118th Street Advances on Properties in Process of Acquisition	Real Estate (Amos F. Eno Endowment) Real Estate (Phoenix Endowment) Real Estate (Phoenix Endowment) Real Estate (Anonymous Endowment) Land and Buildings Real Estate (Hemingway Endowment)	

SPECIAL ENDOWMENTS

	REP	ORT	O F	THE TR	EASU	RER	107
2,801,370.48	330,620.26	814,447.49	\$404,049.06 \$13,414,224.28	20,000.00	5,000.00	3,635.00	100,859.36
5,226.63	25,013.62		\$404,049.06			3,196.00	100,859.36
2,796,143.85	305,606.64	814,447.49	\$13,010,175.22	50,000.00	5,000.00	439.00	100,859.36
KENNEDY (JOHN STEWART) ENDOWMENT FUND: Bequest of the late John Stewart Kennedy, a Trustee of Columbia University 1903 to 1909. Established 1910.	PELL (MARY B.) LEGACY: Bequest of the late Mary B. Pell, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1914	VAN CORTLANDT (ROBERT B.) FUND: Bequest of the late Robert B. Van Cortlandt, the income to be expended in such manner and for such purposes as the Trustecs may from time to time direct. Established 1918	(B) For Designated Purposes	ADAMS (ERNEST KEMPTON) FUND FOR PHYSICAL RESEARCH: Gift of Edward D. Adams, in memory of his son, the late Ernest Kempton Adams, such part of the income as shall be designated by the Trustees to be applied to the stipend of the Research Fellow pursuing researches in the Physical Sciences or in their practical applications; the income received in excess of such stipend to be used in the publication and distribution of the results of the investigation carried on by such Fellows. Established 1904	ALDRICH (JAMES HERMAN) SCHOLARSHIP FUND: Gift of James H. Aldrich, of the Class of 1863, to establish this fund in commemoration of the fiftieth anniversary of his graduation. Established 1913	ALUMNI WAR BONUS FUND: Proceeds of Adjusted Compensation Certificates donated by Columbia University War Veterans, the income to be expended in such manner and for such purposes as the Trustees may from time to time direct. Established 1929.	ANONYMOUS FUND FOR CHURCH AND CHORAL MUSIC: Gift of an Anonymous Donor to establish this fund, the income to be used to maintain a Professorship in Church and Choral Music. Established 1913

At June 30, 1930	\$100,000 00	499,734.63	100,000.00	50,000.00	20,000.00	0,000.00
Additions 1929-1930		\$19,218.13				
At June 30, 1929	\$100,000.00	480,516.50	100,000.00	50,000.00	20,000.00	6,000.00
	ANONYMOUS FUND FOR THE DEPARTMENT OF MINING AND METALLURGY: Gift of an Anonymous Donor to establish a fund for the use and benefit of the Department of Metallurgy in the School of Mines, the income of the fund to be paid to the wife of the donor during her lifetime and thereafter to the donor, should he survive her. Established 1925	ANONYMOUS FUND FOR PHYSICS AND PHYSICAL CHEMISTRY: Gift of an Anonymous Donor, the income to be paid to the donor during his lifetime and thereafter to Columbia University in accordance with the terms of agreement. Established 1928	ART PROFESSORSHIP FUND: Bequest of Hugo Reisinger to found a professorship of the History of Arts. Established 1916	AVERY ARCHITECTURAL FUND: Gift of Samuel P. Avery and Mary Ogden Avery in memory of their deceased son, Henry Ogden Avery, the income of the fund to be applied to the purchase of books relating to architecture, decorations and allied arts. Established 1890, and augmented in 1910 by \$20,000	BAIER (VICTOR) FELLLOWSHIP FUND: Bequest of the late Victor Baier to establish a fellowship in church music to be governed by such rules and regulations as may be determined by the Trustees. Established 1922	BANGS (FRANCIS SEDGWICK) FUND: Gift of Mrs. Francis Sedgwick Bangs to establish a scholarship in the School of Law in memory of her husband, the late Francis Sedgwick Bangs of the Class of 1878 and a Trustee of the University from 1900 to 1920; the scholarship to be awarded to a qualified student who is a member of either the Anglo-Saxon, the Germanic, the Scandinavian, or the Latin race; and preferably one who has been a student in Columbia College. Established 1926

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25,000.00	10,000.00			59,600.00	16,250.00		10,000.00
25,000.00	10,000.00			59,600.00	16,250.00		10,000.00
BARKER (CLARENCE) MUSICAL SCHOLARSHIP FUND: Bequest of the late Mrs. Virginia Purdy Bacon, to establish a graduate scholarship in the Department of Music. Established 1921.	BARNARD FELLOWSHIP FUND: Legacy from the late President Barnard to establish the 'Barnard Fellowship for encouraging Scientific Research.' Established 1889	BARNARD LIBRARY FUND: The residuary estate of the late President Barnard was left to the Trustees of Columbia College to constitute a fund under the name of the 'Barnard Fund for the Increase of the Library,' the	income of which is to be devoted to the purchase of books, especially those relating to physical and astronomical science; but out of the income of this fund so much as may be necessary is to be applied in procuring a gold medal of the bullion value of not less than \$200, to be styled the 'Barnard Medal for Meritorious Service to Science,' to be awarded every five years on the judg-	ment of the National Academy of Science of the United States. The medal will be next awarded in June, 1935. Established 1889.	BARNARD (MARGARET) FUND: The residuary estate of the late Margaret Barnard, widow of the late President Barnard, was left to the Trustees of Columbia College, 'to augment the sum left by my late husband.' Established 1892.	BECK FUNDS: The late Charles Bathgate Beck bequeathed the sum of \$10,000 to be applied as follows: \$2,000 to found one free scholarship, the income to be applied 'to the free yearly tuition and education in said Coliege of one student forever, under such terms and conditions as the rules of said College	and said Trustees shall prescribe,' the income of the remaining \$8,000 to be used for an annual prize 'to the student in the Law School who shall pass the best examination in Real Estate Law.' Established 1899. Beck Scholarship Fund

0, Additions At June 30, 1929-1930	00'000'008	.00 \$290.79 10,290.79		100,000.00	\$62,576.12 62,576.12	.67	
At June 30,	\$10,000.00	10,000.00	\$1,000.00	100,000.00		111,069.67	
	BEEKMAN (GERARD) FUND: Bequest of the late Gerard Beekman, formerly a Trustee of Columbia University, the income to be used in connection with the work of the Chaplain. Established 1920	BEER (JULIUS) LECTURE FUND: Bequest of the late Julius Beer, the income of which is to be applied to providing lectures at intervals not exceeding three years, by lecturers nominated by the Faculty of Political Science and confirmed by the Trustees. Established 1903.	BENNETT PRIZE FUND: Git of James Gordon Bennett, the income, or a medal of equal value, to be given for 'an essay in English prose upon some subject of contemporaneous interest in the domestic or foreign policy of the United States.' Established 1893	BERGH (HENRY) FUND: Anonymous Gift, the income to be used for the promotion of humane education. Established 1907	BERTUCH (FREDERICK) SCHOLARSHIP FUND: Bequest of the late Frederick Bertuch, the income to be applied in assisting needy students to pursue courses of study in any department of the University. Established 1929	BLUMENTHAL ENDOWMENT FUND: Gift of George Blumenthal for the endowment of a Chair of Politics. Established 1906	BLUMENTHAL (GEORGE, Jr.) SCHOLARSHIP FUND: Gift of Mr. and Mrs. George Blumenthal, the income to be awarded to students of Medicine to cover

100,000.00	R E P O	7 O F 000000	THE 7	7 R E A S U	JRER 00'1742'1	1111 0000000°
9	9	0	9	9	9	5,000.00
100,000.00	6,200.00	1,200.00	22,000.00	32,250.00	1,247.00	5,000.0
BONDY (EMIL C.) FUND: Bequest of the late Emil C. Bondy, the income of which is to be applied, first, toward investigation into the cause, prevention and cure of cancer, and, second, toward general research in medicine and surgery and their allied subjects. Established 1916	BORING FELLOWSHIP FUND: Gift of Edward C, Moore, Jr., to establish a Fellowship in the School of Architecture. Established 1922.	BRAINARD (EDWARD SUTLIFF) MEMORIAL PRIZE FUND: Gift of Miss Phoebe T. Sutliff in memory of her nephew Edward Sutliff Brainard of the Class of 1921, the income to be awarded annually to that student in the graduating class of Columbia College who is adjudged by his classmates, according to such rules as the Faculty may prescribe, as most worthy of distinction on the ground of his qualities of mind and character. Established 1920	BRIDGHAM (SAMUEL WILLARD) FUND: Gift of Mrs. Fanny Bridgham to establish a fund, in memory of the late Samuel Willard Bridgham, of the Class of 1867, School of Mines, the income to be applied to the support of a Fellowship to be awarded annually by the Faculty of Applied Science. Established 1915	BULL (WILLIAM T.) MEMORIAL FUND: From the William T. Bull Memorial Fund Committee in honor of the late William T. Bull, M. D., the income to be applied to meet the cost of conducting original research under the direction of the Department of Surgery. Established 1911.	BUNNER PRIZE FUND: Gift of friends of the late Henry Cuyler Bunner, the income to be used to provide every year the 'H. C. Bunner Medal,' to be given to the student who shall present the best essay on an assigned subject in American literature. Established 1896	BURGESS (ANNIE P.) SCHOLARSHIP FUND: Bequest of the late Annie P. Burgess to establish a fund, the income to be applied to the tuition and expenses each year of a worthy and deserving young man of good habits and Christian character. Established 1913.

At June 30, 1930	\$5,000.00	3,000.00	5,500.00	\$6,000.00	20,000.00	250,000.00
Additions 1929-1930						
At June 30,	\$5,000.00	3,000.00	5,500.00	\$6,000.00	20,000.00	250,000.00
	BURGESS (DANIEL M.) SCHOLARSHIP FUND: Bequest of the late Annie P. Burgess to establish a fund, the income to be applied to the tuition and expenses each year of a worthy and deserving young man of good habits and Christian character. Established 1913	BUTLER (NICHOLAS MURRAY) MEDAL FUND: Gift of Archer M. Huntington to establish a fund, the income to be used in providing a gold medal every five years and a silver or bronze medal annually for the most distinguished contribution made anywhere in the world to philosophy, or to educational theory, practice or administration. Established 1914.	BUTLER (RICHARD) SCHOLARSHIP FUND: Gift of Mrs. Richard Butler in memory of her deceased husband, Richard Butler. Open to students born in the State of Ohio. Established 1903	CAMPBELL SCHOLARSHIP FUND: Gilt of \$3,000 each from Miss Maria L. Campbell and Miss Catherine B. Campbell to establish two scholarships in Columbia College in memory of Robert B. Campbell, of the Class of 1844, and Henry P. Campbell, of the Class of 1847. Established 1900	CARPENTER (CLARENCE) FUND: Gift of Mrs. Josephine L. Carpenter in memory of her husband, Clarence Carpenter, the income to be used to promote Cancer Research. Established 1928	CARPENTIER (EDWARD R.) FUND: Gift of Mrs. Maria H. Williamson for the endowment of a 'Professorship, or an endowed lectureship, on the origins and growth of civilization among men.' Established 1906

	REP	ORT	O F	тнн	ETR	EASUR	ER	113
300,031.20	100,000.00	500.00		10,155.79	8,390.37	282,741.88		180,000.00
\$31.20				562.27		9.50		
300,000.00	100,000.00	500.00		9,593.52	8,390.37	282,732.38		180,000.00
CARPENTIER (JAMES S.) FUND: Gift of General H. W. Carpentier to establish a fund in memory of his brother, James S. Carpentier, for the benefit of the Law School. Established 1903	CARPENTIER (R. S.) FUND: Gift of General H. W. Carpentier towards a professorship in the Medical School, in memory of Reuben S. Carpentier. Established 1904	CARTER (HERBERT S.) MEMORIAL FUND: Gift of Dr. Nathaniel R. Norton, the income to be used for lectures in the Medical School. Established 1929	CARTWRIGHT LECTURESHIP FUND: Gift of the Alumni Association of the College of Physicians and Surgeons, the income to be allowed	to accrue and to be added to the principal until further action by the 1 rustees, the annual income then to be used for the support of lectureships at the Medical School in accordance with the wishes of the late Benjamin Cartwright. Original gift \$8,800.50. Established 1928	CASA ITALIANA ENDOWMENT FUND: Gift of various donors, the income to be applied toward the maintenance of the Casa Italiana. Established 1926	CASTNER (HAMILTON YOUNG) FUND: Bequest of the late Cora M. Perkins, the income to be invested by the Trustees of Columbia University in such manner as shall in their judgment most effectively encourage chemical investigation and research. Established 1923	CENTER FUND: Gift of Mary E. Ludlow, in memory of her son, the late Robert Center, the income to be applied either to the solary of a Professor of Music or of other Instructors of Music. or to Fellowships.	Scholarships in Music, or to be used in any one or more of these or such other ways as shall, in the judgment of the Trustees, tend most effectually to clevate the standard of musical instruction in the United States, and to afford the most favorable opportunity for acquiring instruction of the highest order. Established 1896.

114		COLU	MBIA	UNIV	EKSI	1 1	
At June 30, 1930	\$150,000.00	7,500.00	1,100.00	380.06	\$1,050.00	15,250.00	10,000.00
Additions 1929-1930							
At June 30, 1929	\$150,000.00	7,500.00	1,100.00	380.06	\$1,050.00	15,250.00	10,000.00
	CHAMBERLAIN (JOSEPH P.) ENDOWMENT FUND: Gift of Joseph P. Chamberlain for the endowment of a chair of legislation. Established 1917	CHANDLER (CHARLES FREDERICK) FUND: From the Alumni of Columbia University to establish this fund in honor of Professor Charles Frederick Chandler, the income to be applied to the delivery and publication of at least one public lecture each year on some phase of the science of Chemistry, etc. Established 1910	CHANLER PRIZE FUND: Bequest of J. Winthrop Chanler, of the Class of 1847, to found an annual prize for 'the best original manuscript essay in English prose on the History of Civil Government of America, or some other historical subject.' Established 1877	CHAPEL FURNISHING FUND: Created by act of the Trustees on Feb. 1, 1926, by the transfer of the balance of the St. Paul's Chapel Windows Gift Account. This sum to constitute a special fund, either the principal or income of which may be used for furniture and equipment of St. Paul's Chapel. Established 1926	CHAPEL MUSIC FUND: Gift of Gerard Beekman of the Class of 1864 to establish this fund, the income to be applied to the purchase of suitable music for use in the services in St. Paul's Chapel. Established 1913	CLARK SCHOLARSHIP FUND: Bequest of the late Alonzo Clark, M. D., formerly President of the College of Physicians and Surgeons, for the purpose of promoting the discovery of new facts in medical science. First prize bestowed October 1, 1894.	CLASS OF 1848 SCHOLARSHIP FUND: Gift of an Anonymous Friend, for the endowment of two Scholarships in Columbia College. Established 1902.

R E	7 N O P T T 000.00	OF T 1 00521'E1	400.00 H E	TREASU	R E R	115
					<u> </u>	
99.01	2,000.00	13,125.00	400.00	200:00	6,600.00	12,000.00
CLASS OF 1869 FUND: Representing the amount held by the Treasurer of the Class of 1869 at the time of his death. The income or principal to be used as the surviving members of the class may designate. Established 1924.	CLASS OF 1881 ARTS AND MINES FUND: Gift of the Class of 1881 Arts and Mines in commemoration of the fortieth anniversary of their graduation, for the maintenance of the Class of 1881 flagpole and for the purchase of Columbia flags. Established 1921.	CLASS OF 1885 SCHOOL OF MINES FUND: Gift of the Class of 1885 School of Mines in commemoration of the twenty-fifth anniversary of their graduation, the income to be applied to the maintenance of a Scholarship in the Schools of Mines, Engineering and Chemistry, Established 1910	CLASS OF 1888 ARTS AND MINES FUND: For the maintenance of the Class of 1888 Gates. Established 1917.	CLASS OF 1889 MEDAL FUND: Gift of the Class of 1889 School of Mines in commemoration of the twenty-fifth anniversary of their graduation, the income to be applied to the cost of a medal to be awarded triennially to a graduate of the School of Mines, or of any of the schools of applied science or architecture, who shall have distinguished himself by eminent achievement in any sphere of human effort. Established 1915	CLASS OF 1892 ARTS AND MINES FUND: Gift of the Class of 1892 Arts and Mines for the endowment of rooms 633 Hartley and 431 Furnald, the occupancy thereof to be awarded as provided in the deed of gift. Established 1917	CLASS OF 1896 ARTS AND MINES SCHOLARSHIP FUND: Gift of the Class of 1896 Arts and Mines, in commemoration of the twenty-fifth anniversary of their graduation. Established 1921.

110	0.0	LUM	BIA UNIV	EKSI	1 1	
At June 30, 1930	\$1,400.00	16,000.00	1,810.43	1,000.00	3,547.77	4,000.00
Additions 1929-1930		\$1,000.00		36.56	575.00	4,000.00
At June 30, 1929	\$1,400.00	15,000.00	1,810.43	963.44	2,972.77	
	CLASS OF 1901 DECENNIAL FUND: Gift of the Class of 1901 College and Applied Science, the income to be applied toward the expenses of maintaining the work of the Committee on Employment of Students. Established 1911	CLASS OF 1904 SCHOLARSHIP FUND: Gift of the Class of 1904 College and Science, the income to be used for scholarships in accordance with the terms of the gift. Established 1929	CLASS OF 1905 FUND: Gift of the Class of 1905 College and Science, the income to be disposed of yearly by direction of the Class, the accumulated interest being added to the principal if the Class makes no direction. In 1930 the entire fund with accumulations and additions shall be applied to some University, atthetic or alumni, activity as directed by the Class and if the Class make no direction, the entire fund with accumulations and additions shall become the property of the University, as a gift from the Class. Established 1915	CLASS OF 1909 FLAGPOLE FUND: Created by act of the Trustees November 7, 1927, the income to be used for the care and maintenance of the flagpole on Baker Field	CLASS OF 1912 PHYSICIANS AND SURGEONS FUND: Gift of the Class of 1912 of the College of Physicians and Surgeons, the income to be used under the direction of the Dean of the School of Medicine. Established 1927	CLASS OF 1920 DECENNIAL FUND: Gift of the Class of 1920 for the endowment of room 603 Hartley Hall, the occupancy thereof to be awarded as provided in the deed of gift. Established 1930

	REPO	RT O	Г ТН	E T	REAS	URER	117
256.91	\$1,125.00			565,032.97	1,325.00	4,000.00	1,000.00
256.91							
	\$1,125.00			565,032.97	1,325.00	4,000.00	1,000.00
CLASS OF 1927 FUND: Gift of members of the Class of 1927, the income to be added to the principal until further advice of the members of the Class. Established 1929.	COCK (THOMAS F., M. D.) PRIZE FUND: Bequest of the late Augustus C. Chapin, the income to be used to provide an annual prize to be known as the 'Thomas F. Cock, M. D., Prize' for the best thesis on puerperal fever. Established 1915.	COLLINS (PERRY McDONOUGH) SCHOLARSHIP FUND: Bequest of the late Kate Collins Brown, the annual income to be divided into amounts of three hundred Jallace (8200) to be reid annually under such rules and resulations as the Read of	Trustees of the College may from time to time establish, to each of those undergraduates in the academic and scientific courses of the College whose pecuniary condition and resources are, in the judgment of the Board of Trustees, insufficient to defray the expenses of his college education, and if the College is unable in any ware to use the entire income of the soid Fund for the	burposes aforesaid, after making every proper effort to do so, the balance of the income from the Fund in that year, not needed for the aforesaid purposes, shall be applied to the general purposes of the academic and scientific departments of the College. Established 1918	COLUMBIA ALUMNI IN MEMORIAM FUND: Gifts received through the Columbia Alumni Fund, the income to be paid to the Columbia Alumni Fund. Established 1928.	COLUMBIA ALUMNI IN PERPETUITY FUND: Gifts received through the Columbia Alumni Fund, the income to be paid to the Columbia Alumni Fund. Established 1928	COLUMBIA HUDSON-FULTON PRIZE FUND: Gift of the representatives of the various Committees having charge of the reception given on the University grounds in October, 1909, under the auspices of the Hudson-Fulton Celebration Commission, the income to be used for an annual prize or prizes, to be known as the Columbia Hudson-Fulton Prize or Prizes, for an athletic event. Established 1909.

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At June 30, 1930	\$5,210.00	10,037.72	1,100.00	17,025.00	1,414,719.13	1,700.00	1,581.15
Additions 1929-1930	\$5,210.00						751.00
At June 30, 1929		\$10,037.72	1,100.00	17,025.00	1,414,719.13	1,700.00	830.15
	COLUMBIANA ENDOWMENT FUND: Gift of various donors, the income to be used for the support of Columbiana. Established 1930	COLUMBIA UNIVERSITY FOOTBALL ASSOCIATION FUND: From the Trustees of the trust created by the Columbia University Football Association, the income to be applied towards the support of athletic teams or crews representing Columbia University in intercollegiate sports. Established 1911.	CONVERS (E. B.) PRIZE FUND: Gift of Miss Alice Convers and Miss Clara B. Convers to endow, in memory of their brother, Ebenezer Buckingham Convers, of the Class of 1866, a prize in the Columbia Law School. Established 1906	COTHEAL FUND: Gift of Mrs. James R. Swords and Mrs. Samuel Lawrence as a memorial to their brother, Alexander I. Cotheal, the income to be used for the purchase of books in the Oriental Languages, or relating to Oriental countries. Established 1896	CROCKER (GEORGE) SPECIAL RESEARCH FUND: Bequest of the late George Crocker, the income to be used in Cancer Research. Established 1911	CROSBY (WILLIAM O.) COLLECTION OF LANTERN SLIDES FUND: Gift of \$1,800 from friends of Professor William O. Crosby, of Boston, to establish and maintain the collection of geological lantern slides in the Department of Geology known by above title. One hundred dollars was made immediately available and \$1,700 is to constitute a permanent fund, the income only to be used for above purposes. Established 1913.	CROSS (A. K.) VISION TRAINING FUND: Gift of various donors, the income to be used for the benefit of the students of the Home Study Course in Drawing and Painting. Established 1928.

R	EPOR	T OF	тн	е т	REASU	RER 11	9
50,000.00	26,381.23		\$10,000.00	1,300.00	160,000.00	16,502.40	
						\$366.24	
50,000.00	26,381.23		\$10,000.00	1,300.00	160,000.00	16,136.16	
CURRIER (NATHANIEL) FUND: Bequest of Lura Currier, to establish the Nathaniel Currier Fund, the income to be used for the purchase of books for the Library. Established 1908	CURTIS (CARLTON C.) FUND: Gift of Carlton C. Curtis for the endowment of a branch of creative investigation under the terms and conditions as set forth in the deed of gift. Established 1921.	CURTIS FELLOWSHIP FUND: Gift of the George William Curtis Memorial Committee to establish a fellowship in the School of Political Science in Columbia University, to bear the name and to perpetuate the memory of the late George William Curtis, the holder of the fellowship to devote himself to the study of the	science of government, with a special view to its application to the then existing condition of the United States, or the State or City of New York, and to publish a monograph on some subject relating to the then existing condition of the United States, etc. Established 1899	CURTIS (GEORGE WILLIAM) MEDALS FUND: Gift from an associate of George William Curtis in the Civil Service Reform work. Established 1902	CUTTING (W. BAYARD) FUND: Gift of Mrs. W. Bayard Cutting and her children to establish this fund in memory of the late W. Bayard Cutting, of the Class of 1869, the income to provide travelling fellowships. Established 1913.	CUTTING (W. BAYARD, Jr.) FELLOWSHIP FUND: Gift of W. Bayard Cutting, to establish the 'W. Bayard Cutting, Jr. Fellowship Fund.' The income of the fund (to be not less than \$600) is payable to the Graf Erwein von Wurmbrand and the Grafn Eva von Wurmbrand during their lifetime; thereafter, the income shall be used to provide a fellowship in International Law, to be awarded annually at the pleasure of the Trustees, to that student, who, in their indgment, shall have attained a standard of excellence to justify the award. Established 1912.	

At June 30, 1930	\$86,600.00	1,070.00	5,000.00	250,000.00	135,824.04
Additions 1929-1930			\$5,000.00		7,201.27
At June 30, 1929	\$86,600.00	1,070.00		250,000.00	128,622.77
	DA COSTA PROFESSORSHIP FUND: The late Charles M. DaCosta, a member of the Class of 1855, bequeathed to the Trustees of Columbia College \$100,000. Of this sum, the Trustees, on October 6, 1891, for the endowment of a chair in the Department of Biology, set apart \$80,000, which has been increased by the profits of certain investments to.	DARLING (EDWARD A.) PRIZE FUND: Bequest of the late Edward A. Darling, formerly Superintendent of Buildings and Grounds, the income to be awarded as a prize each year at Commencement to that student of the senior class in Engineering whose work during his course of study is voted by his classmates to have been the most honest and thorough. Established 1903	DEAN (BASHFORD) FUND: Becuest of the late Bashford Dean, the income to be awarded annually as the John S. Newberry Prize, in the Department of Zoology. Established 1929	DEAN LUNG PROFESSORSHIP OF CHINESE FUND: Gift of an anonymous friend to found a department of Chinese Languages, Literatures, Religion and Law and especially for the establishment of a Professorship to be known as the Dean Lung Pro- fessorship of Chinese. Established 1901.	DELAFIELD (FRANCIS) ALUMNI PROFESSORSHIP FUND: Gift of the Alumni Association of the College of Physicians and Surgeons, the income to be allowed to accrue and to be added to the principal until such time as the principal shall amount to \$200, 000, the income, then to be used for the salary of a professorship in the Department of Pathology. Original gift \$119,022.20. Established 1928

	REPO	ORT C	ў тн	E TR	EASU	RER	121
5,190,647.02	1,000.00	17,872.16	6,500.00		\$15,301.75	10,000.00	2,000.00
7,500.00	: : : : :	672.16					\$2,000.00
5,183,147.02	1,000.00	17,200.00	6,500.00		\$15,301.75	10,000.00	Collection of
DE LAMAR (JOSEPH R.) FUND: Bequest of the late Joseph R. De Lamar, the income to be expended in such manner as the Trustees may from time to time direct in accordance with the terms of the bequest. Established 1919	DEUTSCHER VEREIN PRIZE FUND: Gift of the Deutscher Verein in Columbia University to establish an annual prize in German. Established 1917.	DEUTSCHES HAUS ENDOWMENT FUND: Gift of Adolph Busch received in 1912 and later transferred to the Germanistic Fund: re-established in 1928, the income to be expended in equipping and maintaining the Deutsches Haus	DEVENDORF (DAVID M.) SCHOLARSHIP FUND: Gift of Mrs. David M. Devendorf, to establish the 'David M. Devendorf Scholarship Fund' as a memorial to her deceased husband, David M. Devendorf, the income to provide a scholarship in the College of Physicians and Surgeons. Established 1911.	DEWITT (GEORGE G.) SCHOLARSHIP FUND: Gift of Mrs. George G. DeWitt of New York to establish this fund, the net annual income to be awarded as a scholarship by the Faculty of Law to any graduate of Columbia College of good	mental and moral standing in his class, who may need such assistance to enable him to pursue the three-years course at the Law School and who, in the judgment of the Faculty of Law, shall be worthy of such privilege; provided that the holder of this scholarship shall reside in one of the Residence Halls of the University during his period of study. Established 1917.	DOUGHTY (FRANCIS, M. D.) SCHOLARSHIP FUND: Bequest of Phebe Caroline Swords to establish the 'Francis E. Doughty, M. D., Scholarship Fund' in the College of Physicians and Surgeons, open to members of any class. Established 1912	DRAPER LIBRARY FUND: Gift of an anonymous donor, the income to be used to maintain the Draper Memorial Collection of books in the Medical School Library. Established 1929

1	22 .	c o	LUMBI.	A UNI	VERSITY	0	9
	At June 30, 1930	\$10,750.00	18,000.00	41,812.08	10,500.00	1,325.00	100,000.00
The state of the s	Additions 1929-1930						
	At June 30, 1929	\$10,750.00	18,000.00	41,812.08	10,500.00	1,325.00	100,000.00
		DRISLER CLASSICAL FUND: Gift of Seth Low, formerly President of the University, for the endowment of the 'Henry Drisler Classical Fund' for the purchase of books, maps, charts, busts and such other equipment as will tend to make instruction in the classics more interesting and effective. Established 1894	DU BOIS (DR. ABRAM) MEMORIAL FUND: Gift of William A. Du Bois, Matthew B. Du Bois and Katharine Du Bois, in memory of their father, Dr. Abram Du Bois, the income to be applied to the maintenance of a fellowship to be known as the Doctor Abram Du Bois Fellowship, to be open to a graduate of the College of Physicians and Surgeons devoting himself to the subject of diseases of the eye. Established 1910	DUNNING (WILLIAM A.) FUND: Bequest of the late William A. Dunning, the income to be paid to Mathilde M. Dunning during her lifetime, and thereafter to be applied to the promotion of instruction and research in the Depart- ment of History. Established 1923	DYCKMAN FUND: Gift of Isaac Michael Dyckman in memory of his uncles, Dr. Jacob Dyckman and Dr. James Dyckman, both of the College of Physicians and Surgeons, to establish the 'Dyckman Fund for the Encouragement of Biological Research,' the interest derived therefrom to be devoted annually to such object, consistent with the purposes of the gift, as shall be recommended by the Department of Zoology and approved by the President. Established 1899	EARLE PRIZE FUND: Gift of the Earle Memorial Committee to establish the Earle Prize in Classics. Established 1907	EATON PROFESSORSHIP FUND: Bequest of the late Dorman B. Eaton to endow and maintain a Professorship of Municipal Science and Administration in the College. Established 1903.

	REPOR	TOF	тне	TREA	SURE	r 123
5,000.00	1,000.00	5,000.00	6,391.00	2,100.00	\$16,585.35	30,000.00
	*					
5,000.00	1,000.00	5,000.00	6,391.00	2,100.00	\$16,585.35	30,000.00
EDSON (HERMAN ALDRICH) SCHOLARSHIP FUND: Bequest of the late Mary Gertrude Edson Aldrich to establish this Fund. Established 1925	EIMER (AUGUST 0.) MEDAL FUND: Gift of the classmates and friends of August O. Eimer of the Class of 1906, the income to provide medals for proficiency in swimming under the direction of the Columbia University Athletic Association. Established 1927.	EINSTEIN FUND: Gift of Dr. and Mrs. Charles Waldstein, as a memorial to Mrs. Waldstein's parents, Mr. and Mrs. D. L. Einstein, the income of which is to be awarded annually to that graduate student doing the best and most original work in the field of American Diplomacy. Established 1911	ELLIS (GEORGE ADAMS) SCHOLARSHIP FUND: Gift of George Adams Ellis, the income to provide an annual scholarship in the Law School. Established 1927	ELSBERG (ALBERT MARION) PRIZE FUND: Gift of Mrs. Albert Elsberg to establish this fund as a memorial to her son, Albert Marion Elsberg, of the Class of 1905, the income to provide the 'Albert Marion Elsberg Prize in Modern History.' Established 1912	EMMONS (SAMUEL FRANKLIN) MEMORIAL FUND: Amount collected by the Committee of the Emmons Memorial Fund for a fellowship in Scientific Research. Established 1913.	EVANS (HENRY) FELLOWSHIP FUND: Gift of Mrs. Henry Evans in memory of her husband, the late Henry Evans of the Class of 1881, the income to be awarded annually as a fellowship in accordance with the terms and conditions of the gift. Established 1928

121	COLOM	DIA	ONIVE	RSIII	
At June 30, 1930	\$20,000.00	1,000.00	14,876.59	10,000.00	3,000.00
Additions 1929-1930					\$3,000.00
At June 30, 1929	\$20,000.00	1,000.00	14,876.59	10,000.00	
	EVANS (HENRY) SCHOLARSHIP FUND: Gift of Mrs. Henry Evans in memory of her husband, the late Henry Evans of the Class of 1881, the income to be paid under such rules and regulations as the Trustees may from time to time establish, to an undergraduate in Columbia College entering upon his Freshman year, whose pecuniary condition and resources are, in the judgment of the Faculty, insufficient to defray the cost of his college education.	EWELL (ELLA MARIE) MEDAL FUND: Bequest of Glover C. Beckwith-Ewell in memory of his wife, Ella Marie Ewell, the income to provide an annual medal in the School of Dental and Oral Surgery. Established 1926	FACULTY HOUSE MAINTENANCE FUND: Created by act of the Trustees on October 5, 1925 by the transfer of the balance of the Schermerhorn (F. Augustus) Bequest, this sum to constitute a special fund, the income to be used for the physical maintenance and upkeep of the Faculty House. Established 1925	FERGUSON (DAVID W. AND ELLEN A.) FELLOWSHIP FUND: Gift of William C. Ferguson of the Class of 1887, School of Mines, to establish a fellowship in the Department of Chemistry, the holder of the fellowship to devote himself to investigation upon the subject of synthetic drugs and medicines. Established 1921.	FIELD (OTIS W.) FUND: Bequest of the late Otis W. Field, the income to be awarded annually to the man of the Junior or Senior Class who, in the judgment of the Dean of the University, shall be deemed most worthy to receive same; basing the award on the good character and fair scholarship of a scholar who is working his way through college and is in need of financial assistance. Established 1930

	REP	ORT	OF '	THE	TREAS	URER	. 125
356,500.35	560.39	16,500.00	20,000.00	1,250.00	10,000.00	31,336.76	\$48,000.00
20,028.11						949.70	
336,472.24	560.39	16,500.00	20,000.00	1,250.00	10,000.00	30,387.06	\$48,000.00
FINE ARTS ENDOWMENT FUND: Gift of an anonymous donor to establish this fund for the benefit of the School of Architecture. Estab-lished 1913	FOX (RICHARD H.) MEMORIAL PRIZE FUND: Gift of Mr. and Mrs. Leon S. Fox, the income to provide the Fox Prize in the College. Established 1927.	GARTH MEMORIAL FUND: Gift of Horace E. Garth to establish a fellowship in Political Economy in memory of his son, the late Granville W. Garth. Established 1904	GEBHARD FUND: Bequest of Frederick Gebhard to found a Professorship of German Language and Literature. Established 1843	GERMAN LECTURE FUND: Gifts for an endowment for Public Lectures in German at the University, the income to be used for advertising, printing, slides, etc. Established 1901	GIBSON (WILLIAM HENRY) SCHOLARSHIP FUND: Gift of Mrs. Honora Gibson Pelton in memory of her father, William Henry Gibson, of the Class of 1875, the income to be awarded annually as a scholarship in accordance with the terms and conditions of the gift. Established 1927.	GIES (WILLIAM J.) FELLOWSHIP FUND: Gift of the William J. Gies Fellowship Fund Committee to establish a fellowship in Dental and Medical research. Established 1923	GILDER (RICHARD WATSON) FUND FOR THE PROMOTION OF GOOD CITIZENSHIP: Contributions by the friends of the late Richard Watson Gilder to establish this fund in his honor, the income to be used to enable succeeding classes of students to devote themselves as 'Gilder Fellows' to the investigation and study of political and social conditions in this country and abroad, etc. Established 1911.

	At June 30, 1929	Additions 1929-1930	At June 30, 1930	
GOLDSCHMIDT (SAMUEL ANTHONY) FELLOWSHIP FUND: Gift of George B. Goldschmidt, to establish this fund, as a memorial to Samuel Anthony Goldschmidt, of the Class of 1871, the income to be used for the maintenance of a fellowship in Chemistry. Established 1908	\$25,000.00		\$25,000.00	
GOTTHEIL (GUSTAV) LECTURESHIP FUND: Gift from Temple Emanu-El to establish a lectureship, the holder of which is to be nominated by the Professors in the Department of Semitic Languages, subject to confirmation by the Trustees. Established 1903.	18,425.00		18,425.00	
GOTTSBERGER (CORNELIUS HEENEY) FELLOWSHIP FUND: Bequest of Ellen Josephine Banker to establish a fellowship to bear the name and be in memory of her deceased brother, Cornelius Heeney Gottsberger. Established 1904	9,500.00		9,500.00	
EEN PRIZE FUND: Gift of Mr. and Mrs. Asher Green to establish this fund, in memory of their son, a member of the Class of 1914, the income to provide the Green Prize in the College. Established 1913	1,000.00		1,000.00	
GROSVENOR (ROBERT) MEMORIAL FUND: Git of Mr. William Grosvenor of Providence, R. I., in behalf of his mother and her family, in memory of Robert Grosvenor, deceased, a former member of the Class of 1918 in the Medical School, the income to be used for the purchase of books for the library at the Medical School. Established 1920	2,500.00		2,500.00	
HALL (GEORGE HENRY) FUND: Bequest of the late George Henry Hall to establish this fund, the income of which is to be used to maintain continuously one scholar in the University for the full term of four years, such scholar to be selected by the Trustees. Established 1913	14,363.22		14,363.22	

R E 0000001	\$7,123.37 1,124,787.31	1,403,290.78	14,125.00 116,625.00	T R E A	S U R E I	00'000'9
1,000.00	1,117,663.94	1,403,290.78	102,500.00	110,000.00	31,332.73	
HAMILTON (JOHN CHURCH) FUND: Bequest of Miss Adelaide Hamilton to be set apart as a fund for the purchase of books, as a memorial to her father, John Church Hamilton, a son of Alexander Hamilton, a proper book-plate to be set in each volume purchased with the income of the fund. Established 1917	HARKNESS (EDWARD S.) FUND: Gift of Edward S. Harkness, the income to be used for medical education and research. Established 1922.	HARKNESS (MRS. STEPHEN V.) FUND: Gift of Mrs. Stephen V. Harkness, the income to be used for medical education and research. Established 1922.	HARRIMAN (REVEREND ORLANDO) FUND: Gift of the children of the late Reverend Orlando Harriman, of the Class of 1835, as a memorial to their father, the income, until further action by the Trustees, to be applied to the salary of the Professor of Rhetoric and English. Established 1908.	HARRIS (ELLEN C.) FUND: Bequest of the late Ellen C. Harris for the erection and endowment of a building as a memorial to her mother, the late Evelina M. Harris. Established 1922	HARSEN SCHOLARSHIP FUND: Founded by the late Jacob Harsen, M. D., in 1859, the income to be given in prizes. Under an order of the N. Y. Supreme Court in 1903, the income is thereafter to be used for scholarships in the Medical School, to be known as the Harsen Scholarships	HARTLEY (FRANK) SCHOLARSHIP FUND: Gifts from friends of the late Frank Hartley, M. D., to endow a scholarship in the College of Physicians and Surgeons, as a memorial. Established 1914

	At June 30, 1929	Additions 1929-1930	At June 30, 1930	120
HAUGHTON (PERCY D.) MEMORIAL FUND: Gift of the Haughton Memorial Committee in memory of the late Percy D. Haughton, the income to be applied to the rental and maintenance of a specified room in John Jay Hall to be known as the Haughton Memorial Room. Established 1926	\$4,520.70	\$226.38	\$4,747.08	COL
HAVS (MRS, WALTER) FUND FOR MEDICAL RESEARCH: Gift of Mrs. Walter Hays, the income to be used for the promotion of research at the College of Physicians and Surgeons. Established 1929	1,000.00		1,000.00	
HEMINGWAY (THE) SCHOLARSHIP FUND: Gift of William Herbert Hemingway, the income to be paid to the donor during his lifetime, and thereafter to be used for the Hemingway Scholarships in Medicine. Established 1928	86,004.35	47.60	86,051.95	A O N
HEPBURN (A. BARTON) ENDOWMENT FUND: Gift of A. Barton Hepburn, formerly a trustee of the University, the income to be applied, as the Trustees may from time to time provide, to the maintenance and conduct of the School of Business. Established 1918.	888,097.74		888,097.74	IVEK
HEPBURN (A. BARTON) PROFESSORSHIP FUND: Bequest of the late A. Barton Hepburn, formerly a trustee of the University, to found or aid in founding a professorship in either economics or history. Established 1922	150,000.00		150,000.00	
HERVEY (WILLIAM ADDISON) MEMORIAL SCHOLARSHIP FUND: Gift of the William Addison Hervey Memorial Committee, the income to provide a scholarship in the department of Germanic Languages. First awarded October 1, 1925, and biennially thereafter. Es- tablished 1924.	3,510.00		3,510.00	

	REPO	RT C	FTI	HE T	REASUR	ER	129
24,329.38	5,000.00	5,000.00	5,000.00	5,000.00	2,300.00	15,000.00	5,021.28
							5,021.28
24,329.38	5,000.00	5,000.00	5,000.00	5,000.00	2,300.00	15,000.00	5,021.28
HOLT (L. EMMETT) FELLOWSHIP FUND: Bequest of Dr. L. Emmett Holt to establish a fellowship for the study of the diesases of children. Bstablished 1925	HUBER (FRANCIS) SCHOLARSHIP FUND: Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from an institution other than Columbia College, Barnard College or Hunter College. Established 1921	HUBER (FREDERICK W. Jr.) SCHOLARSHIP FUND: Gift of Dr. Frederick W. Huber to establish a scholarship to be awarded under the terms of the gift, to a student in the first or freshman year in Columbia College. Established 1924	HUBER (JOSEPH AND CHRISTINA) MEDICAL LIBRARY FUND: Gift of Francis Huber, the income to be expended for the purchase of books on internal medicine. Established 1929.	HUBBR (VIOLA B.) SCHOLARSHIP FUND: Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from Hunter College. Established 1921.	ILLIG FUND: Bequest of William C. Illig, of the Class of 1882 School of Mines, the income to be applied to the purchase of prizes to be awarded to students of the graduating class of the School of Mines who shall, in the judgment of the Faculty, have merited the same by commendable proficiency in such scientific subjects as the Faculty may designate. Established 1898	INDO-IRANIAN FUND: Gift of an Auonymous Donor to found this Fund, the income to be used for the maintenance of the Department of Indo-Iranian Languages. Established 1908	JACOBI (ABRAHAM) LIBRARY FUND: Gift of Francis Huber, the income thereof to be expended for the purchase of books and journals on pediatric subjects for the Library of the Medical School. Established 1921

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At June 30, 1930	\$20,000.00	\$50,000.00	100,000.00	26,750.00	1,800.00	2,000.00
Additions 1929-1930						
At June 30, 1929	\$20,000.00	\$50,000.00	100,000.00	26,750.00	1,800.00	2,000.00
	JACOBI (ABRAHAM) SCHOLARSHIP FUND: Gift of Francis Huber to establish four scholarships, two of which shall be awarded to students entering the Medical School from Columbia College and two to students entering the Medical School from the College of the City of New York. Established 1921	JAMES (WALTER BELKNAP) RESEARCH FELLOWSHIP FUND: Bequest of Dr. Walter B. James, the income to be used for the benefit of the College of Physicians and Surgeons. Established 1927. Augmented in 1928 by gift of Mrs. Walter B. James, \$25,000.00	JAMES (D. WILLIS) FUND: Bequest of D. Willis James, the income to be applied until further action by the Trustees, to the salary of the Professor of Geology. Established 1908	JANEWAY (E. G.) LIBRARY ENDOWMENT FUND: Gitt of Mrs. Russell Sage to establish the E. G. Janeway Library Endowment Fund, the income of which is to be devoted to the maintenance and extension of the Janeway Library in the College of Physicians and Surgeons. Established 1912.	JEFFERSON STATUE MAINTENANCE FUND: From the Executors of the Estate of Joseph Pullizer, the income to be used for the care and repair of the Statue of Thomas Jefferson. Original gift, \$1,589.92, to which has been added accrued in- come \$210.08. Established 1917.	JOHNSTON (EDWARD W. S.) FUND: Bequest of Mrs. Anna A. Johnston, the income to be used for the upkeep of the Scudder-Johnston collection in the Library. Established 1926

20,000.00	REPORT	O F 000000'1	THE TR 00752'5	E A S U R	ER 131
20,000.00	15,000.00	1,000.00	5,250.00	30,000.00	210,000.00
KEMP (JAMES FURMAN) FUND: Gift of an Anonymous Donor, the income to be exclusively for the benefit of the Department of Geology and to be used for fellowships, scholarships, loans to students or research. Established 1924	KOPLIK CHILDREN'S SCHOLARSHIP FUND: Bequest of Henry Koplik in memory of his wife, Stephanie Koplik, the income to be paid every two years to the physician, under thirty years of age, who shall be selected by a committee appointed by the Faculty of the Medical School for having shown special aptitude for original work in the investigation of diseases of children. Established 1928	LASHER (JOHN K.) FUND: Bequest of the late John K. Lasher, Jr., the income to be applied toward the support of the work of the Columbia University Christian Association. Established 1920.	LAW LIBRARY FUND: Created by act of the Trustees on March 5, 1900, by the consolidation of the Alexander Cole gift (\$1,500, John J. Jenkins Legacy (\$500); John McKeon Fund (\$1,000); and Edgar J. Nathan Gift (\$250), the income to be applied to the purchase of law books. Augmented by act of the Finance Committee, October 2, 1907, by adding the Pyne Law Gift (\$1,000).	LEE (THE) FUND: Gift of Dr. and Mrs. Frederic S. Lee to establish this fund, the income to be used to meet the cost of equipment and research in the Department of Physiology. Established 1914. Original gift \$20,000.00 Augmented in 1928 by \$10,000.00.	LIBBEY (JONAS M.) FUND: Bequest of the late Jonas M. Libbey, the income to be used to promote and support research and to publish and distribute the results of such research in regard to the application of the principles of biological and pathological chemistry, and of electro-chemistry and electro-physics to human need and welfare. Established 1923

At June 30, 1930	\$90,281.25	7,000.00	100,000.00	0,000.00	\$5,000.00	3,000.00
Additions 1929-1930	\$90,281.25			3,000.00		
At June 30, 1929		\$7,000.00	100,000.00	3,000.00	\$5,000.00	3,000.00
	LODGE (STANWOOD COCKEY) FOUNDATION: Gift of an Anonymous Donor the income to be paid to the donor during his lifetime, to his wife after his death and thereafter for the publication of works in Classical Philology and Literature. Established 1930	LOUBAT FUND: Gift of Joseph F. Loubat for prizes to be given every five years for works in the English Language on the History, Geography, Archaeology, Ethnology, Philology or Numismatics of North America. First prize, \$1,000; second prize, \$400. Established 1892	LOUBAT PROFESSORSHIP FUND: Gift of Joseph F. Loubat to establish the Loubat Professorship in American Archaeology. Established 1903.	MACMAHON (KATHERINE) SCHOLARSHIP FUND: Bequest of the late Katherine MacMahon, the income to be awarded to the first year student in Journalism deemed most worthy by the Faculty of that School as a help for further study in the School of Journalism during the following year. Established 1925. Bequest \$1,500.00 augmented by gifts from Mrs. Louise Ewing Dexter. \$4,500.00.	MAISON FRANCAISE ENDOWMENT FUND: Gift of Robert Bacon, the income to be used in defraying the running expenses of the Maison Francaise. Established 1913	MANNERS (EDWIN) FUND: Legacy of the late Edwin Manners to establish this Fund. Established 1914

10,000.00	E P O R T O02,313.50	F T H 00'000's	27,450,00	A S U R	ER	12,340.00
10,000.00	12,313.50	5,000.00	27,450.00	25,000.00		12,340.
MARKOE (FRANCIS HARTMAN) SCHOLARSHIP FUND: Bequest of Madeline Shelton Markoe in memory of her husband Francis Hartman Markoe, the income to be awarded annually to a student in the College of Physicians and Surgeons. Established 1929.	MAYER (RALPH EDWARD) FUND: Contributions by the friends of the late Professor Ralph Edward Mayer to establish this fund to perpetuate the memory of his constant devotion to the University and of his unselfish service to the Alumni, the income to be paid to the family of the late Professor Mayer as long as the Trustees of the Fund may deem it expedient. Later the income is to be used for a scholarship or loan fund for the benefit of deserving students in the Schools of Mines, Engineering and Chemistry who may be in need of assistance. Established 1924.	MCANENY (MARJORIE) SCHOLARSHIP FUND: Gift of Francis Huber to establish a scholarship to be awarded to a student entering the Medical School from Barnard College. Established 1921.	McCLYMONDS (LOUIS K.) SCHOLARSHIP FUND: Bequest of Mrs. Annie M. McClymonds in memory of her husband, Louis K. McClymonds, the income to provide scholarships to young men of limited means receiving the relative highest standing in the entrance examinations in Columbia College. Established 1926	McKIM FELLOWSHIP FUND: Gift of Charles F. McKim for two traveling fellowships in the Department of Architecture. The fellowships are awarded in odd-numbered years. Established 1889	MEDICAL SCHOOL EQUIPMENT FUND: Created by act of the Committee on Finance on October 31, 1922, by the transfer of \$12,340 received from the United States Government on account of the cost of equipment received from the Columbia War Hospital, this sum to constitute a special fund for the purchase of equipment for the	Medical School, the income of which, and if necessary any portion of the principal, to be expended as may be needed under the direction of the Trustees. Established 1924

	At June 30, 1929	Additions 1929-1930	At June 30, 1930	
MEGRUE (ROI COOPER) SCHOLARSHIP FUND: Bequest of Stella Cooper Megrue, the income to be awarded annually as a scholarship in accordance with the terms and conditions of the gift. Established 1928	\$7,000.00		\$7,000.00	
MEGRUE (STELLA COOPER) FUND: Bequest of Stella Cooper Megrue, the principal or income to be expended for the support and maintenance of the basketball team in such manner as the Trustees may direct. Established 1928	1,000.00		1,000.00	
MEGRUE (STELLA COOPER) SCHOLARSHIP FUND: Bequest of Stella Cooper Megrue, the income to be awarded annually as a scholarship in accordance with the terms and conditions of the gift. Established 1928	7,000.00		7,000.00	
MEJERHOF (DR, HAROLD LEE) MEMORIAL PRIZE FUND: Gift of Dr. and Mrs. Edward Lee Meierhof, as a memorial to their son, Dr. Harold Lee Meierhof, the income of which is to be awarded annually, in recognition of some meritorious piece of research accomplished in the Department of Pathology. Established 1921	1,000.00		1,000.00	
MEMBER OF THE CLASS OF 1885 FUND: Gift of Grant Squires, of the Class of 1885, the income to be awarded every five years to defray the expenses of a sociological investigation that promises results of a scientific value. Established 1895	1,050.00		1,050.00	
MICHAELIS (DR. ALFRED MORITZ) PRIZE FUND: Gift of Mrs. Jeanette Michaelis, to establish this fund, the income to be awarded annually to a student in Columbia College for proficiency in certain designated courses in Physics. Established 1926.	1,000.00		1,000.00	
MILLER (GUY B.) FUND: Bequest of the late Guy B. Miller, of the Class of 1898, College of Physicians and Surgeons, for the general purposes of the Medical School. Established 1904	10,000.00		10,000.00	

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250,000.00	10,000.00	2,000.00	2,010.00	12,500.00	7,500.00	25,000.00	200,000.00
						\$15,000.00	200,000.00
250,000.00	10,000.00	2,000.00	2,010.00	12,500.00	7,500.00	10,000.00	
MILLER (NATHAN J.) FUND: Gift of Mrs. Nathan J. Miller, in memory of her husband, Nathan J. Miller, to found a Chair in Jewish History, Literature and Institutions. Established 1928	MITCHELL (WILLIAM) FELLOWSHIP FUND: Bequest of the late Benjamin D. Stillman to establish, in honor and memory of his friend, William Mitchell, deceased, the William Mitchell Fellowship Fund in Letters or Science. Established 1908.	MOFFAT SCHOLARSHIP FUND: Bequest of William B. Moffat, M. D., of the Class of 1838, 'for the purpose of one or more scholarships for the education and instruction of one or more indigent students.' Established 1862	MONTGOMERY (ROBERT H.) PRIZE FUND: Gift of Robert H. Montgomery to establish this fund, the income to be awarded as a prize to the member of the graduating class of the School of Business who has specialized in accounting and who is deemed by the staff of the School of Business to be most proficient in all courses. Established 1916.	MORRIS (AUGUSTUS NEWBOLD) FUND: Gift of Newbold Morris, of the Class of 1891 Law, in memory of his father Augustus Newbold Morris, of the Class of 1860, the income to provide a fellowship for an advanced student of Public or Private Law who may be a candidate for the degree of Doctor Juris. Established 1924	MOSENTHAL FELLOWSHIP FUND: Gift of the friends of the late Joseph Mosenthal, to found a fellowship in Music. Established 1898	MURRAY (GEORGE W.) FUND: Gift of George Wellwood Murray, of the Class of 1876 Law, to establish this fund, the income to be used for Research in Legal History. Established 1924	NIVEN (ROBERT JOHNSTON) FUND: Bequest of the late Charlotte E. de Sers in memory of her father, Robert Johnston Niven, to endow a chair in such branch of learning as the Trustees may decide. Established 1930

	At June 30, 1929	Additions 1929-1930	At June 30, 1930
ORDRONAUX (JOHN) FUND: Bequest of Dr. John Ordronaux, to establish prizes in the Law School, to be presented annually. Established 1909	\$3,050.00		\$3,050.00
PEELE (ROBERT) PRIZE FUND: Gift of E. E. Olcott, the income to be given annually to a member of the graduating class in mining and metallurgical engineering who shall have shown the greatest proficiency in his course of study. Established 1925.	2,000.00		2,000.00
PERKINS FELLOWSHIP FUND: Request of Willard B. Perkins, the income to be expended every four years for a traveling fellowship in the Architectural Department. Established 1898	5,700.00		5,700.00
PERKINS (EDWARD H., Jr.,) SCHOLARSHIP FUND: Bequest of Norton Perkins in memory of his father, Edward H. Perkins, Jr., the income to provide a scholarship in History or Economics. Established 1926	15,000.00		15,000.00
PETERS (WILLIAM RICHMOND, Jr.) FUND FOR ENGINEERING RESEARCH: Gift of Mr. and Mrs. William R. Peters to establish this fund as a memorial to their son, William Richmond Peters, Jr., of the Class of 1911, Civil Engineering, the income of which is to be applied to the work of research in the Department of Civil Engineering. Established 1912	00.000,009		00.000.00
PHILOLEXIAN CENTENNIAL WASHINGTON PRIZE FUND: Gift of the Philolexian Society from J. Ackerman Coles, of the Class of 1864, the accumulated income to be expended every four years for a duplicate of the life-size bronze bust of George Washington, modeled from life at Mount Vernon, by Jean Antoine Houdon. Bust to be cast at the Barbadienne Foundry, Paris, France, and to be given to that member of the Philolexian Society, who, in the popinion of the President of the University, the President of the Society, and a third man of their			
choosing, shall be deemed most worthy, upon his delivery of an original patriotic address. Established 1902.	\$1,000.00		\$1,000.00

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15,000.00	

15,000.00

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COLEXIAN PRIZE FUND: rom the Philolexian Society, the income to be paid to the Society for prizes. Established 1904		
the income to		1,400.00
the income to		Established 1904
PHI	PHILOLEXIAN PRIZE FUND:	From the Philolexian Society, the income to be paid to the Society for prizes.

PHOENIX LEGACY:

Bequest of the late Stephen Whitney Phoenix, the income to be used for the purpose of scientific instruction and research. Established 1881.....

PRENTICE FUND FOR ROWING:

Established by transfer of the Prentice Gift for Rowing received in 1926, the income to be paid to the Athletic Association for the support of rowing. Established 1929.....

PRESIDENT'S HOUSE (FURNISHING AND EQUIPMENT) FUND:

Created by act of the Trustees on November 6, 1922, by the transfer of \$13,415.13 remaining in the anonymous gift of \$30,000.00 reported to the Trustees on March 6, 1911, and increased from the general funds of the University to \$20,000.00, this sum to constitute the principal of a special fund for the furnishing and equipment of the President's House, the income of which, and if necessary any portion of the principal, to be expended as may be needed under the direction of the President. Established 1922....

PROUDFIT (ALEXANDER MONCRIEF) FELLOWSHIP FUND:

Bequest of the late Alexander Moncricf Proudfit, of the Class of 1892, to found a fellowship for the encouragement of study in English Literature, to be known as the 'Alexander Moncrief Proudfit Fellowship in Letters,' to be held only by such persons as, being the sons of native-born American parents, shall have taken the degree of Bachelor of Arts after a three years' residence in Columbia College, and shall, while enjoying such fellowship, or the income thereof, remain unmarried Established 1899....

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15,000.00

15,000.00

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14,085.95

\$1,708.54 Decrease

15,794.49

PROUDFIT (MARIA McLEAN) FELLOWSHIP FUND IN MEDICINE;

Bequest of the late Alexander Moncrief Proudfit, of the Class of 1892, to found a fellowship to be known as the 'Maria McLean Proudfit Fellowship,' to be held only by such persons, as being the bia College, pursue advanced studies in Medicine, and shall, while enjoying such fellowship, or the sons of native-born American parents, shall, under the direction of the Medical Faculty of Columincome thereof, remain unmarried. Established 1899..

1,400.00	1,200,000.00	5,000.00
		5,000.00
1,400.00	1,200,000.00	

At June 30, 1930	\$100,000.00	1,300,000.00	550,000.00	283,437.50	2,500.00	5,000.00
Additions 1929-1930		Decrease 550,000.00	550,000.00			
At June 30, 1929	\$100,000.00	1,850,000.00		283,437.50	2,500.00	5,000.00
	PSYCHOLOGY FUND: Gift of John D. Rockefeller, as an endowment of the head professorship of the Psychological Department of Columbia University. Established 1899.	PULITZER (JOSEPH) FUND FOR SCHOOL OF JOURNALISM: Gift from Joseph Pulitzer to establish and endow a School of Journalism in Columbia University. Established 1903	PULITZER PRIZE FUND: Gift of Joseph Pulitzer, the income to be used for prizes in accordance with the terms of the gift. Established 1903	PULITZER SCHOLARSHIP FUND: Gift of \$100,000 by Joseph Pulitzer to found thirty scholarships for graduates of City Grammar Schools, one-half the sum to be used on improvements on the new site at 116th St. Established 1893. Augmented in 1912.	RECKFORD (LOUIS J.) FUND: Gift of Miss Adelaide Reckford in memory of her father, Louis J. Reckford, of the Class of 1886, the income to be used for the purchase of books and other illustrative material for the University Library. Established 1929.	REISINGER (HUGO) FUND: Request of the late Hugo Reisinger, the income to be applied in the discretion of the Trustees to the purchase of books, periodicals, and other material for instruction and research in matters relating to the German peoples. Established 1919.

57,488.00 S7,488.00 E	2,171.11 67.70 2,238.81 H	O 4,750.00 + 4,750.00	THE TR 00'000'1	3,630.00 3,630.00	Z2,393.94 S Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	13900000
REVOLVING LOAN FUND FOR ATHLETIC ACTIVITIES: Gift of Various Donors to establish a Revolving Loan Fund for Athletic Activities, the principal to be loaned to the University Committee on Athletics at such times, for such purposes, and on such terms and conditions as the Trustees may approve. Established 1927	RHODES (F. P. F.) SCHOLARSHIP FUND: Gift of E. E. Olcott in memory of his classmate, Francis Pell Forsyth Rhodes, School of Mines, '74, to establish this fund, the income to be awarded on Commencement Day of each year to a member of the graduating class in Metallurgy, in accordance with the terms of the gift. Established 1926	ROGERS (HOWARD MALCOLM) SCHOLARSHIP FUND: Bequest of the late Henrictia Rogers to establish this Fund. Established 1925	ROLKER (CHARLES M., Jr.,) PRIZE FUND: Gift of Mrs. Charles M. Rolker, the annual income to constitute a prize to be publicly awarded on Class Day of each year to that member of the graduating class in Columbia College who, in the judgment of his classmates, has proven himself most worthy of special distinction as an undergraduate student, either because of his industry and success as a scholar, or because of his helpful participation in student activities, or because of pre-eminence in athletic sports. Established 1909	ROMAINE (BENJAMIN F.) PRIZE FUND: Gift of Benjamin F. Romaine to establish a prize for proficiency in the Greek language and literature. Established 1922	ROSS (GEORGE) FUND: Bequest of the late Catherine A. Ross, the income to be used for the advancement and development of athletics at Columbia University. Established 1923	SACKETT (HENRY W.) FUND: Bequest of the late Henry W. Sackett, the income to provide two annual scholarships in the School of Journalism. Established 1930.

	At June 30, 1929	Additions 1929-1930	At June 30, 1930
SANDHAM (ANNA M.) SCHOLARSHIP FUND: Bequest of the late Anna M. Sandham to establish a scholarship at Barnard College. Established 1922	\$10,000.00		\$10,000.00
SAUNDERS (ALEXANDER) SCHOLARSHIP FUND: Bequest of the late Mary Ellen Saunders in memory of her husband Alexander Saunders to establish an undergraduate scholarship for the benefit of an American boy of Scotch, English or Irish parentage, to be nominated by the superintendent, principal and teachers of the Yonkers High School, in Yonkers, N. Y. Established 1922.	12,000.00		12,000.00
SAUNDERS (LESLIE M.) SCHOLARSHIP FUND: Bequest of the late Alexander Saunders to establish a scholarship for the benefit of the youth nominated therefor by the principal and teachers of the Yonkers High School in Yonkers, N. Y., in the first instance, and thereafter to fill a vacancy as it may occur from time to time perpetually, and upon such conditions as such principal and teachers may determine, with such power and authority to them to fill such a scholarship for a term of either one year, two years, three years, or four years, as they may from time to time determine. Established 1917	0,000.00		00.000.00
SCHERMERHORN (F. AUGUSTUS) FUND: Established by the Trustees for a traveling fellowship in the Department of Architecture in recognition of the liberality of Mr. F. Augustus Schermerhorn of the Class of 1868, to this Department. This fellowship is awarded in even-numbered years. (Name changed from Columbia Fellowship Fund.) Principal reduced from \$13,000.00 to \$12,500.00. Established 1889	12,500.00		12,500.00
SCHERMERHORN SCHOLARSHIP FUND: Bequest of John J. Schermerhorn, of the Class of 1825, 'for the purpose of free scholarships, the nomination to which shall vest in my nearest male relative in each generation during his lifetime.' Established 1877	5,000.00		5,000.00

00'000'008	18,000.00 18,000.00	100,000,000 100,000,000 100,000,000	\$56,500.00 \$3,780.00 \$60,280.00 H	T R E 00.000,01	A S U R 1	12,000.00 12,000
SCHERMERHORN (WILLIAM C.) MEMORIAL FUND: Bequest of Mrs. John Innes Kane in memory of her father, William C. Schermerhorn, the income to be applied, as the Trustees may direct, to the support of the religious work of the University. Established 1927.	SCHIFF FELLOWSHIP FUND: Gift of Jacob H. Schiff to found a fellowship in the School of Political Science, to be annually awarded by the Faculty on the nomination of the donor or his eldest living male descendant, etc. Established 1898	SCHIFF (JACOB H.) ENDOWMENT FUND: Gift of Jacob H. Schiff for the endowment of a Professorship of Social Economy in order to make possible a close affiliation between Columbia University and the New York School of Philanthropy. Established 1905.	SCHOOL OF DENTAL AND ORAL SURGERY ENDOWMENT FUND: Gift of Various Donors for the endowment of the School of Dental and Oral Surgery. Established 1929.	SCHURZ (CARL) FELLOWSHIP FUND: From the Carl Schurz Fund Committee in honor of Carl Schurz. Established 1900	SCHURZ (CARL) LIBRARY FUND: From the Carl Schurz Fund Committee in honor of Carl Schurz, the income to be devoted to the purchase of books, maps, pamphlets and the like, in the field of the German Language and Literature. Established 1900.	SEIDL FUND: The proceeds of a memorial performance held at the Metropolitan Opera House on March 23, 1899, in honor of the late Anton Seidl, the income of the fund to be paid to Mrs. Seidl during her lifetime, and thereafter 'to be awarded at least every second year to the most promising candidate, either man or woman, prepared to devote himself, or herself, to the study of musical composition at Columbia University, or elsewhere in this country or abroad

	At June 30, 1929	Additions 1929-1930	At June 30, 1930
SHOEMAKER (WILLIAM BROCK) FUND: Gift as a memorial to the late William Brock Shoemaker, of the Class of 1902, in Columbia College, established jointly by his wife, Ella de Peyster Shoemaker, and his father, Henry F. Shoemaker, the income to be used for the benefit of self-supporting students. Established 1908	\$10,000.00		\$10,000.00
SIMON (THEODORE W.) FUND: Bequest of Theodore W. Simon for the general purposes of the Medical School. Established 1927	8,588.26		8,588.26
SMITH PRIZE FUND, SCHOOL OF MEDICINE: Gift of relatives, friends and pupils of the late Joseph Mather Smith, M. D., as a memorial of his services as Professor in the College of Physicians and Surgeons from 1826 to 1866. An annual prize of \$100 is to be awarded for the best essay on the subject for the year by an alumnus of the College. Established 1894.	3,500.00	\$1,605.41	5,105.41
SMYTH (DAVID W.) SCHOLARSHIP FUND: Gift of David W. Smyth, of the Class of 1902, the income to be awarded annually as a scholarship to a student in Columbia College whose pecuniary condition and resources are, in the judgment of the Faculty, insufficient to defray the expenses of a collegiate education. Established 1926	20,000.00		20,000.00
SOCIAL AND POLITICAL ETHICS PROFESSORSHIP FUND: To endow a chair of Social and Political Ethics. Established 1918	47,943.27		47,943.27
STEVENS PRIZE FUND, SCHOOL OF MEDICINE: Established by the late Alexander Hodgson Stevens, formerly President of the College of Physicians and Surgeons. The income of the fund is to be awarded every three years for the best medical essay covering original research as determined by the committee in charge of the prize. Established 1891.	1,900.00		1,900.00

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20,000.00	6,000.00	\$8,032.75	4,200.00	12,000.00	6,000.00	11,500.00
20,000.00	6,000.00	\$8,032.75	4,200.00	12,000.00	6,000.00	11,500.00
STOKES (CAROLINE PHELPS) FUND: Bequest of the late Caroline Phelps Stokes, the income to be used for lectures, prizes or essays by the students of Columbia, Barnard and Teachers Colleges. Established 1910	STUART SCHOLARSHIP FUND: The gift of Mrs. Cornelia A. Atwill, in memory of her grandsons, Sidney Barculo Stuart, of the Class of 1880, and Eugene Tolman Stuart, of the Class of 1881, to found two scholarships in the College, to be known as "Stuart Scholarships." Established 1895	SWIFT MEMORIAL FUND: Gift from the Trustees of the Association of the Alumni of the College of Physicians and Surgeons, representing the principal sum and accrued income as of December 31, 1920, of the Swift Memorial Fund, created in 1883 by Dr. James T. Swift as a memorial to his brother, Dr. Forest Swift, of the Class of 1887. Established 1921.	TOPPAN PRIZE FUND: Gift of Mrs. Sarah M. Toppan, to establish this fund in memory of her late husband, Robert Noxon Toppan, the income to be used annually in providing the Robert Noxon Toppan Prize in the School of Law. Established 1904	TROWBRIDGE FELLOWSHIP FUND: Gift of the Alumni Association of the School of Mines as a memorial of the late Professor Trowbridge, to establish the 'William Petit Trowbridge Fellowship in Engineering.' Established 1893	TURNER (CHARLES W.) SCHOLARSHIP FUND: Gift of Wallis S. Turner, of the Class of 1900, to establish, in memory of his father, Charles W. Turner, a scholarship in Columbia College, to aid the education of a needy or deserving student, to the end that through the advantages of such education the recipient may aspire to the highest type of American Citizenship. Established 1920.	TYNDALL FELLOWSHIP FUND: Gift of the late Professor John Tyndall, of London, the income to be applied to the support of 'American pupils who may have shown decided talent in Physics, etc.' Established 1885

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	At June 30, 1929	Additions 1929-1930	At June 30, 1930	44
UNIVERSITY PUBLICATION FUND: Created by act of the Trustees November 6, 1922, from part of the bequest of the late Daniel B. Fayerweather, the income of such fund, and if necessary any portion of the principal, to be expended under the direction of the President, to meet the cost of publishing works of scholarship and research through the Columbia University Press. Established 1922	\$7,857.64	Decrease \$7,456.45	\$401.19	COLU
VAN AM PRIZE FUND: Gift of the Class of 1898 in commemoration of the twenty-fifth anniversary of its graduation and in memory of John Howard Van Amringe of the Class of 1866 to establish a fund, the income to be used in providing a bronze medal to be awarded each year to that member of the Sophomore Class who shall have most distinguished himself for service, character and courtesy in his relations to faculty, fellow students and visitors to the University. Established 1923	6,060.00		6,060.00	J M B I A U
VAN AMRINGE (PROFESSOR) MATHEMATICAL PRIZE FUND: Gift of George G. DeWitt, of the Class of 1867, to establish this fund, the annual income to constitute the Professor Van Amringe Mathematical Prize in Columbia College. Established 1910	5,100.00		5,100.00	NIVE
VAN AMRINGE MEMORIAL FUND: Established by the transfer of the balance of gifts received for the Van Amringe Memorial, the income to be used for the upkeep and repair of the Van Amringe Memorial. Established 1927	484.92	15.08	200.00	KSII
VAN BUREN (JOHN D., Jr.) MATHEMATICAL PRIZE FUND: Gift of Mrs. Louis T. Hoyt, to establish this fund in memory of her nephew, John Dash Van Buren, Jr., of the Class of 1905. Established 1906.	5,500.00		5,500.00	Y
VAN PRAAG (L. A.) FUND: Bequest of L. A. Van Praag to be used by the Trustees, at their discretion, for research into the causes and cure of cancer. Established 1915	8,000.00	8,000.00	8,000.00	

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1,000.00		100,000.00	\$5,087.24	800.00	390,00
1,000.00		100,000.00	\$5,087.24	800.00	. 390.00
VAN RENSSELAER (MARIANA GRISWOLD) PRIZE FUND: Gift of Maximilian Foster, the income to be awarded to the student who submits during the college year the best example of English lyric verse. Established 1926	WARING FUND: The Chamber of Commerce of the State of New York, in the latter part of the year 1898, raised by public subscription the sum of \$100,000 to perpetuate the memory of the late George E. Waring. The income of the fund (to be not less than \$4,000 per year) is to be paid semi-annually to the widow and daughter of Colonel Waring their lifetime, and thereafter 'the income shall be devoted to the purpose of instruction in municipal affairs in such manner as the President and	Board of Trustees of such College may direct.' For Mrs. Waring\$50,000.00 For Miss Warling\$50,000.00	WATSON (DR. WILLIAM PERRY) FOUNDATION IN PEDIATRICS: Gift of Dr. William Perry Watson, to establish a permanent fund, the annual income of which shall be given in eash to that member of the graduating class showing the most efficient work in the study of the Diseases of Infants and Children. Established 1921	WEINSTEIN (ALEXANDER) MEMORIAL FUND; Gift of the classmates and friends of the late Alexander Weinstein, a member of the Class of 1921 College of Physicians and Surgeons, to establish this fund, the income from which is to be used in purchasing annually for the library of the Medical School additional copies of those reference books which are in greatest demand among the students. Batablished 1921	WENDELL MEDAL FUND: Gift of the friends in the Alumni and Faculty of the late Professor George Vincent Wendell to homor and perpetuate his memory, the income to be applied to the cost of a medal to be awarded each year to a student in the graduating class of the Schools of Mines, Eugineering and Chemistry who has been chosen by his class as best exemplifying the ideals of character, scholarship and service represented by Professor Wendell. Established 1924

At June 30, 1930	00'000'9	12,000.00	5,027.07	50,000.00	\$35,382,777.67
Additions 1929-1930					\$891,586.82
At June 30, 1929	6,000.00	12,000.00	5,027.07	50,000.00	\$34,491,190.85
	WHEELER (H. A.) SCHOLARSHIP FUND: Gift of H. A. Wheeler of the Class of 1880, School of Mines, to establish a scholarship for students in mining, engineering or geology who need financial assistance to carry on their work in the undergraduate department of Columbia University. Established 1923	WHEELER (JOHN VISSCHER) SCHOLARSHIP FUND: Bequest of the late Susan E. Johnson Hudson to establish this fund, the income to provide a scholarship in the University. Established 1914	WHEBLOCK (GEORGE G.) FUND: Gift of Mrs. George G. Wheelock and William H. Wheelock, to establish this fund in memory of the late Dr. George G. Wheelock, the income to be used to meet the needs of the Department of Physiology. Established 1907.	FIRE INSURANCE FUND: For the purpose of meeting the cost of repairing damage due to fire in those academic buildings which are not specifically insured	

PERMANENT FUNDS

ESTABLISHED BY GIFT FOR THE PURCHASE OF LAND AND ERECTION AND EQUIPMENT OF BUILDINGS

	At June 30,	Additions	At June 30,
	1929	1929-1930	1930
Apparatus: Optical	\$7,110.00		\$7,110.00
Autobiography: John Stuart Mill	100.00		100.00
Avery Architectural Building	341,079.68		341,079.68
Baker Field	732,483.30		732,483.30
Morningside Heights Site	331,150.00		331,150.00
		Decrease	
Boat House: Baker Field	4,361.75	\$2,861.75	1,500.00
Boat House: Class of 1897	8,000.00		8,000.00
Casa Italiana	315,000.00	1	315,000.00
Castings: Duriron	75.00		75.00
Chapel Furnishing	3,382.00		3,382.00
Chemical Laboratories	30,000.00		30,000.00
Clock: Class of 1906	1,159.64		1,159.64
Crocker Research Laboratory: X-Ray	1,107.01		1,107.01
	18,465.53		18,465.53
Equipment			
Da Costa Laboratory	20,000.00		20,000.00
Deutsches Haus	30,000.00		30,000.00
Earl Hall: Building	164,950.82		164,950.82
East Field	420,000.00		420,000.00
Egleston (Professor): Setting of Bust	390.00		390.00
Engineering Apparatus	450.00		450.00
Exedra, Granite	5,000.00		5,000.00
Faculty House: Building	306,965.37		306,965.37
Faculty House: Equipment	28,047.48		28,047.48
Fayerweather Hall: Building	330,894.03		330,894.03
Filter, Rotary	1,000.00		1,000.00
Flagstaff: Class of 1881	4,600.00		4,600.00
Fountain of Pan	12,013.50		12,013.50
Furnace, Hegeler	2,000.00		2,000.00
Furnald Hall: Building	350,000.00		350,000.00
Gates: Class of 1882	1,500.00		1,500.00
Gates: Class of 1888	2,000.00		2,000.00
Gates: Class of 1891	15,000.00		15,000.00
Goldsmith Library	850.00		850.00
Hamilton Hall: Building	507,059.16		507,059.16
Hamilton Hall: Clock	1,913.90		1,913.90
Hamilton Hall: Gates	2,020.00		2,020.00
Hamilton Hall: Gemot	1,000.00		1,000.00
Hamilton Hall: Class of 1909 Shield	20.00		20.00
Hamilton Statue	11,000.00		11,000.00
"Hammerman"	5,000.00		5,000.00
Hartley Hall: Building	350,000.00		350,000.00
Hartley Hall: Stained Glass Windows	2,000.00		2,000.00
Havemeyer Hall: Building	414,206.65		414,206.65
Havemeyer Hall: Annex	511,922.31		511,922.31
Havemeyer Hall: Laboratory	600.00		600.00
	30,000.00	1	30,000.00
Highland, N. Y.: Property			1,035.00
Illuminating University Grounds	1,035.00 9,930.00		9,930.00
Instruments: Optical			64,325.00
John Jay Hall: Building	64,325.00		
John Jay Hall: Equipment	6,000.00		6,000.00
Kent Hall: Building	495,672.57		495,672.57
Library: Building	1,100,639.32		1,100,639.32

	At June 30,	Additions	At June 30,
		1929-1930	
	1929	1929-1930	1930
Library: Equipment	\$2,570.00		\$2,570.00
Library: Marble Columns	1,678.00		1,678.00
-			
Library: Torcheres	6,000.00		6,000.00
Livingston Hall: Memorial Window	1,124.00		1,124.00
Maison Française: Building	33,300.00		33,300.00
Medical School (New): Building	3,601,569.02		3,601,569.02
Medical School (New): Residence Hall Site	529,647.05		529,647.05
Medical School (New): Site	985,001.00		985,001.00
Medical School (Old): Additions	117,842.07		117,842.07
Medical School (Old): Building	71,551.05		71,551.05
Medical School: Removing and Rebuilding	53,000.00		53,000.00
Medical and Surgical Equipment	14,912.80		14,912.80
Mineral Specimens: Dufourcq Collection	300.00		300.00
Model: Buildings and Grounds	19,972.70		19,972.70
Model: Braden Copper Co	1,700.00		1,700.00
Model: Coal Mine	250.00		250.00
Nichols Laboratories	30,000.00		30,000.00
Pathological Laboratory	19,136.94		19,136.94
	350,000.00		350,000.00
Philosophy: Building			
Physics: Building	810,748.90		810,748.90
Power House: Steam Boilers	3,250.00		3,250.00
Precision Laboratory	8,000.00		8,000.00
President's House Furnishing	14,410.17		14,410.17
Publications: Cragin Collection	1,400.00		1,400.00
St. Paul's Chapel: Bell	5,120.84		5,120.84
St. Paul's Chapel: Building	250,000.00		250,000.00
St. Paul's Chapel: Furniture	3,221.62		3,221.62
St. Paul's Chapel: Memorial Windows	32,700.00		32,700.00
St. Paul's Chapel: Organ and Case	27,000.00		27,000.00
St. Paul's Chapel: Torcheres	5,280.00		5,280.00
Schermerhorn Hall: Building	483,010.16	\$59,684.12	542,694.28
Schermerhorn Hall: Extension	318,538.44	872,818.30	1,191,356.74
School of Business: Building	961,758.33		961,758.33
		1	
School of Dental and Oral Surgery (Old)	471,185.32		471,185.32
School of Dental and Oral Surgery (New).	311,973.44		311,973.44
School of Dentistry: Building	33,500.00		33,500.00
School of Dentistry: Equipment	5,584.92		5,584.92
School of Journalism: Building	563,501.21		563,501.21
			250,000.00
School of Mines: Building	250,000.00		
School of Mines: Torcheres	1,000.00		1,000.00
Sloane Hospital for Women: Additions and			
Alterations	399,263.14		399,263.14
Smith (Munroe) Tablet	1,840.00		1,840.00
South Court Fountains	4,932.88		4,932.88
South Field	54,707.00		54,707.00
South Field Grading	11,500.00		11,500.00
Statue of Letters and pylon	8,598.72		8,598.72
	13,148.95	1	13,148.95
Statue of Science and pylon			
Sun Dial—116th Street	10,000.00		10,000.00
Telescope	5,497.35		5,497.35
Trophy Room: Equipment	980.00		980.00
University Hall: Enlargement	100,756.41		100,756.41
Van Amringe Memorial	20,238.34		20,238.34
Vanderbilt Clinic: Building	350,000.00		350,000.00
Villard (Henry) Legacy	50,000.00		50,000.00
	\$18,434,572.78	\$929,640.67	\$19,364,213.45

GIFTS AND BEQUESTS

Received for the Purchase of Land and Erection and Equipment of Buildings

See Permanent Funds, pages 140 and 141

(For list of gifts other than money see separate pamphlet)

A		
Name Purpose	Date	Amount
Adams (Edward D.)Precision Laboratory: Physics		
Building	1913	\$8,000.00
Adams (Edward D.)Deutsches Haus, 419 West 117th		
Street	1910	30,000.00
Aldrich (Mrs. Richard)Medical School (old) Additions Alexander (Chas. W.)Clinton window, St. Paul's Chapel	1917 1906	5.00
Alumni Association of Colum-	1900	300.00
bia College	1906	997.50
Alumni Association of Colum-		,,,,,,,
bia College	1908	10,000.00
Alumni Association of Colum-		
bia College	1900-13	100,756.41
Alumni FundSchool of Dental & Oral Surgery	1021.27	20 540 20
(new)	1921-27	28,540.29
Interest 1,250.00		
\$28,540.29		
Anderson (Mrs. E. M.)Medical School (old) Additions	1917	5,000.00
AnonymousFurnishing President's House	1910	14,410.17
Gift		
Transfer to		
Special		
Endow-		
ments 13,415.13		
15,589.83		
011 110 17		
\$14.410.17		
Anonymous		
meyer Hall	1915	30,000.00
Anonymous	1909	1,000.00
Anonymous	1929	150,007.65
Anonymous	1917-19	10,691.58
AnonymousMedical School (removing and		
rebuilding)	1915	15,000.00
AnonymousMedical and Surgical Equipment. AnonymousModels of buildings and grounds	1919-21 1906-08	4,712.80 19,972.70
AnonymousFurniture, St. Paul's Chapel	1908	2,846.62
AnonymousSchool of Dental & Oral Surgery	1700	2,040.02
(new)	1926-27	75,891.20
Gifts \$61,742.35		
Interest 14,148.85		
\$75,891.20		

Name	Purpose	Date	A mount
Anonymous	.South Field Grading	1909	1,500.00
	.Trophy Room Equipment	1922	980.00
	. Medical and Surgical Equipment.	1921	200.00
Avery (Samuel P.)	. Avery Library Building	1911-14	339,250.00
	В		
Babcock (Samuel D.)	. Morningside Heights Site	1892	5,000.00
Babcock & Wilcox	.Steam Boilers—Power House	1907	3,250.00
	. Medical School (old) Additions	1917	2,500.00
Baker (George F.)	. Baker Field	1922-24	730,583.15
	Total amount of		
	gifts \$771,940.59		
	Taxes, etc 41,357.44		
	\$730,583.15		
Baldwin (Helen, M.D.)	. Medical School (old) Additions	1917	100.00
	Optical Instruments	1920-24	9,100.00
Beck (Chas. Bathgate) Be			
questKent Ha	Il Building	1899-1912	385,672.57
	Total Bequest\$382,808.37		
	Interest on bequest 10,373.20		
	\$393,181.57		
	Less legal expenses. 7,509.00		
	\$385,672.57		
Beekman (Gerard)		1006	600.00
Beekman (Gerard)	Chapel	1906	600.00
Beekman (Gerard)	Chapel	1906	600.00
Benson (Mary)	. Medical School (old) Additions	1917	25.00
	. Morningside Heights Site	1892	1,000.00
	. Medical School (old) Additions	1917	1,000.00
Bondy Fund Income	.X-Ray Equipment: Crocker Lab-		
	oratory	1922	10,677.85
	. Medical School (old) Additions	1917	50,000.00
	. Models of copper mines	1925	1,700.00
Bruce (Catherine Wolfe)	. Telescope for New Observatory	1899	5,497.35
	Gift of \$10,000 received 1899.		
	The gift with interest was partly used in expenses, the		
	balance remaining was used		
	in part payment of the cost		
	of a telescope in the Physics		
	Building erected in 1925-26.		
Burgess (Annie P.) Estate of	.John Jay Hall Construction	1927-29	6,525.00
Burgess (Annie P.) Estate of	.School of Business Building	1913-24	64,188.71
	Bequest\$63,396.26		
	Interest 792.45		
	\$64,188.71		
	\$04,100.71		
	C		
Cornegie Cornenation		1025 28	1 100 000 00
	. Medical School (new) Building Morningside Heights Site	1925-28	1,100,000.00
Carter (Henry C.)	, morningside Heights Site	1072	130.00

Name Purpose	Date	Amount
Cheesman (Dr. T. M.)Cheesman Window: St. Paul Chapel		600.00
Cheesman (Dr. T. M.) Estate of	0 1 -	11,162.81
\$11,162.8		
Clark (Alfred C.)	. 1908-09	10,000.00 12,013.50
(New)	. 1927	10,511.11
Interest	1 _	
\$10,511.1 	1	
Class of 1874Marble Columns in Library		1,678.00
Class of 1880		2,020.00
Class of 1881, Arts and Mines Gemot: Hamilton Hall		1,000.00
Class of 1881	. 1900	4,600.00
and Political ScienceMantel: John Jay Hall	. 1926	2,500.00
Class of 1882120th Street Gates		1,500.00
Class of 1882, Science Torcheres: School of Mines		1,000.00
Class of 1883, Arts, Mines and		,
Political ScienceTorcheres: St. Paul's Chapel	. 1908	5,280.00
Class of 1883, MinesSetting Bust of Professor Eglesto	1913	390.00
Class of 1884, Arts and Mines. Clock: Hamilton Hall		1,913.90
Class of 1884, ScienceGrading South Field	. 1909	5,000.00
Class of 1885, CollegeStained glass window "Sophocles,	•	
Hartley Hall		1,000.00
Class of 1885, College Sun Dial: South Field		10,000.00
Class of 1886Granite Exedra: the Quadrangle.		5,000.00
Class of 1888Gates at Amsterdam Avenue an		
Class of 1889Barnard Window: St. Paul	8	2,000.00
Chapel Class of 1889, MinesMeunier Statue, "The Hammer		1,200.00
man": the Ouadrangle	. 1914	5,000.00
Class of 1890Statue of Letters and pylon: S.E.		· ·
Cor. Broadway and 116th Stree Class of 1891, CollegeStained Glass Window "Vergil	t 1913-16	8,598.72
(Hartley Hall)		1,000.00
Class of 1891Gates between Mines and Er		
gineering Buildings		15,000.00
Class of 1893Bell: St. Paul's Chapel		5,120.84
Class of 1896, Arts and Mines. Panels: John Jay Hall		2,500.00
Class of 1897		8,000.00
Class of 1897, Arts and Mines. Prentice Eight-oared Shell		1,500.00
Class of 1899 Grading South Field		5,000.00
Class of 1900		13,148.95
Class of 1906Clock on South Field		1,159.64
Class of 1900		20.00
Class of 1915, College and	1712	20.00
ScienceMantel and Clock: John Jay Hall	1927	1,000.00

Name Purpose	Date	Amount
Clinton (DeWitt)	1906 1909	300.00 100,000.00
College of Dental and Oral Surgery	1924	656.00
College of Dental and Oral Surgery	1924	462,529.32
and Grounds \$444,529.59 Cash		
\$462,529.32 College of Physicians and		
SurgeonsMedical School (old) Building Columbia University Athletic	1903	71,551.05
AssociationBoat-house at Highland, N. Y	1921	30,000.00
Converse (E. C.)	1919	1,000.00
Cragin (E. B.)Publications	1919	1,400.00
oratory	1921	7,787.68
Cutting (R. Fulton)Morningside Heights Site	1893	10,000.00
D		
Da Costa (Charles M.)Laboratory, Schermerhorn Hall Davies (Julien T.)Barnard Window: St. Paul's	1890	20,000.00
Chapel	1913	1,000.00
Davies (Julien T.)Benson Window: St. Paul's Chapel	1906	600.00
DeLamar Fund, Income of Medical School (old) Additions De Peyster (Mrs. Frederic J.) De Peyster Window: St. Paul's	1920	3,600.00
Chapel DeWitt (George G.)Barnard Window: St. Paul's	1905	600.00
Chapel	1905	500.00
Dodge (Marcellus Hartley)Furnishing Men's Faculty Club	1925	495.00
Dodge (Marcellus Hartley)Hartley Hall Building	1904-05	175,000.00
Dodge (Marcellus Hartley)South Court Fountains	1906-08	4,932.88
Dodge (William E.)Earl Hall	1900-02	164,950.82
Gift\$159,540.38 Interest5,410.44		
\$164,950.82		
Donahue (Mrs. James P.)School of Dental and Oral Surgery,		
(New)	1926	55,745.15
Gift \$50,000.00 Interest 5,745.15		
\$55,745.15		
Dryden (Forrest F.)	1918	1,000.00
Duriron Castings CoCastings for the Department of Chemical Engineering	1920	75.00
E		
Eddy (Jesse L.)Medical School (old) Additions Epsilon Psi EpsilonOptical Instruments	1918 1927	500.00 1,800.00

Name	Purpose	Date	A mount
Former (Doniel B)	F		
Fayerweather (Daniel B.) Bequest	Fayerweather Hall Building \$346,319.73 Less Expenses 15,425.70	1891-1917	330,894.03
	\$330,894.03		
France-America Committee	Fish Window: St. Paul's Chapel Maison Franciase Equipment School of Business Building Bequest\$2,389.85 Interest199.79	1906 1914 1923	600.00 2,000.00 2,589.64
	\$2,589.64		
Fuller (Paul, Jr.)	Maison Francaise Equipment	1913	100.00
acy	Furnald Hall Building	1912-14	350,000.00
	G		
General Education Board	Medical School (new) Building Gift \$1,250,000.00 Interest 49,732.57	1925-28	1,299,732.57
	\$1,299 , 732.57		
General Optical Co	Optical Instruments	1920-27	2,020.00
	Optical Instruments	1920	250.00
	Goldsmith Library	1927 1909	850.00 100,000.00
	St. Paul's Chapel Furnishing	1924	30.00
	Н		
	Optical Instruments	1927	560.00
	Medical School (old) Additions New Medical School Site	1917 1923	50.00 985,001.00
markiness (Edward S.)	Gift, 1923, assessed	1923	903,001.00
	valuation \$1,180,000 Less value of land transferred as fol-		
	lows: Neurologi-		
	cal Insti-		
	tute\$120,000 New York		
	State		
	Psychi- atric		
	Hospital. 74,999		
	\$985,001		
Harkness (Edward S.)	Residence Hall site, New Medical		
Transmices (Edward S.)	School	1929	529,647.05
	Medical and Surgical Equipment. Morningside Heights Site	1919 1901	10,000.00 5,000.00

Name	Purpose	Date	Amount
	Chemical Laboratories Bequest\$522,600.86 Legal exp\$500.00 Taxes. 667.47 Harris (Ellen C.) Fund 103,352.70	1922	511,922.31
W (Harry O.) and	93,841.62 \$511,922.31		
Havemeyer (Henry O.) and others	Havemeyer Hall Building Gift of property valued at\$450,000.00 Less loss on sale 35,793.35	1896	414,206.65
	\$414,206.65		
	Medical School (old) Additions Maison Francaise: 411 West 117th	1919	100.00
Hepburn (A. Barton) Estate	Street	1913	30,000.00
Hewitt (Hon. Abram S.)	School of Business Building Morningside Heights Site Medical School (old) Additions	1923-24 1893-96 1918	190,506.93 4,000.00 1,000.00
	Chool of Business Building Bequest	1920	5,581.40
	\$5,581.40		
Huntington (Archer M.)	Medical School (old) Additions	1919	1,000.00
Israel (Leon)	School of Business Building Gift	1919	3,255.00
	J		
James (D. Willis)	Medical School (old) Additions Morningside Heights Site Medical School (old) Additions School of Dental and Oral Surgery,	1918 1892-94 1919	1,000.00 50,000.00 500.00
	(New)	1916	105,000.00
	\$105,000.00		

Name	Purpose	Date	Amount
Jennings (Mrs. Anne B.)	Medical School (old) Additions	1917	500.00
	Hartley Hall Building	1904-05	175,000.00
	Philosophy Building	1910-11	350,000.00
	Morningside Heights Site	1893	5,000.00
	Model of Coal Mine	1923	250.00
	Maison Française Equipment	1913	200.00
Jusserand (J. J.)		1913	200.00
	K		
Kane (Annie C.) Estate of]	Physics Building	1927	500,000.00
Kennedy (John Stewart)	Hamilton Hall Building	1905-06	506,061.66
	Gifts \$500,000.00		
	Interest 6,061.66		
	\$506,061.66		
King (Hon. John A.)	Morningside Heights Site	1892	1,000.00
	Medical School (removing and re-		
	building)	1915-16	2,000.00
King (Willard V.)	School of Dental & Oral Surgery		
111112 (1111111111111111111111111111111	(new)	1927	2,000.00
Kingsland (Mrs. A. C.)	Kingsland Window: St. Paul's		_,
iningeland (Mils. II. C.)	Chapel	1906	300.00
Kingsland (Mrs. Geo. I.)	Kingsland Window: St. Paul's	2,00	000.00
kingeland (Mrs. Geo. 2.)	Chapel	1906	300.00
		1,00	000.00
	L		
Ladenberg (Mrs. Emily)	Medical School (removing and re-		
	building	1915	1,000.00
Lagemann (Miss Anna)	Medical School (old) Additions	1917	10.00
Lange (Edmund)	School of Dental & Oral Surgery		
	(new)	1929	56.80
Langeloth (Jacob) Estate of	School of Business Building	1915	5,062.50
	Bequest \$5,000.00		
	Interest 62.50		
	\$5,062.50		
Lawrence (Mrs. Benj. B.)	Barnard and Lawrence Windows:		
	St. Paul's Chapel	1923	18,400.00
	Gift\$20,000.00		
	Transferred to		
	Chapel Furnishing		
	Fund 1,600.00		
	 		
	\$18,400.00		
Lawrence (Mrs. Benj. B.)	St. Paul's Chapel Furnishing	1923	3,727.00
	Balance of gift for		
	Memorial Windows \$1,600.00		
	Interest\$2,456.53		
	Less trans-		
	fer to		
	Chapel		
	Furnish-		
	ing Fund. 329.53		
	2,127.00		
	\$3,727.00		

Name	Purpose	Date	Amount
Lee (Mrs. Frederic S.)	.School of Dental & Oral Surgery (new)	1927	5,366.11
	\$5,366.11		
	Engineering Apparatus	1919 1904-05	450.00 250,000.00
John Henry and Goodhue). Low (A. A.)	.Memorial Window, Livingston Hall	1909 1892-94	1,124.00 15,000.00
Low (Seth)	. Morningside Heights Site . Library Building	1892 1896-99	5,000.00 1,100,639.32
	M		
McClelland (John)	.Pathological Laboratory: Medi-		
Molean (James)	cal School	1891 1918	19,136.94 1,000.00
	. Maison Française Equipment	1914	1,000.00
	. Medical School (old) Additions	1918	12,000.00
	. Medical School (old) Additions	1917-19	6,000.00
	. Medical School (old) Additions	1919	1,000.00
McMillin (Emerson)	.School of Business Building	1917-18	568,069.02
	Gift of 2,040 Shares of Common		
	Stock of the American Light		
	& Traction Co., the proceeds of which, together with inter-		
	est and dividends, amounted		
	to \$568,069.02.		
Mehler (Miss Elsa)	. Medical School (old) Additions	1917	10.00
	. Medical School (old) Additions	1918	1,000.00
	. Morningside Heights Site	1892-95	100,000.00
Morgan (William Fellowes)	. Illumination of University Grounds . School of Dental & Oral Surgery	1913	1,035.00
	(new)	1927	2,622.92
	Gift\$2,500.00 Interest122.92		
	\$2,622.92		
Mosher (Eliza M.)	. Medical School (old) Additions	1917	500.00
	School of Business Building	1920-21	110,226.04
	Bequest \$91,101.43		
	Less Expenses 2,220.34		
	88,881.09		
	Interest 21,344.95		
	\$110,226.04		
Munsey (Frank A.)	.Toward Purchase of East Field	1910	50,000.00
	N		
NT 1 (TTY-11)		4040	256.00
	. Medical School (old) Additions . Hegeler Furnace	1918 1923	250.00 2,000.00

Name Purpose	Date	A mount
New York Odontological Soci-	10 .	
etyAnatomical Collections and mens		8,000.00
Nichols (William H.) Laboratories: Havemeyer		30,000.00
Notman (George)Medical School (old) Addit		100.00
Notman (Mrs. George)Medical School (old) Addit		100.00
0		
Ogden (David B.)Ogden Window: St. Paul's		600.00
Oliver Continuous Filter Co Rotary Filter		1,000.00
Optometrical Club of Brooklyn. Optical Instruments Optometrical Society of the	1927	1,500.00
City of New YorkOptical Instruments	1927	1,750.00
Osborne (Mr. and Mrs. Wm.		-,
Church)Medical School (old) Addit		1,000.00
Ottindorfer (Oswald)Morningside Heights Site.	1892	5,000.00
P		
Palmer (Edgar) Medical School (old) Addit		3,000.00
Parish (Henry)		5,000.00 100.00
Parsons (Mrs. Edgerton)Medical School (old) Addit		5.00
Parsons (General William)		
Barclay)Portrait	1928	2,570.00
Peabody (George Foster and	G1 1 400# 04	27.000.00
Charles)Organ and Case: St. Paul's Pell (Howland) and othersPell Window: St. Paul's Cl		27,000.00 600.00
Pendleton (Francis K.)Pendleton Window: St.		600.00
Chapel		600.00
Philosophy, Department of		
(Members)Autobiography of John Stu-		100.00
Phoenix Legacy: IncomeObservatory and Telescop		25 740 00
sics Building Equipment of Schermerho		35,748.90 39,960.84
Pratt (Mrs. Chas. M.) Medical School (old) Addit		500.00
Pulitzer (Joseph) School of Journalism Build		563,501.21
Gift of \$1,000,000 to e		
and endow a School of		
nalism, of which \$563 was expended in th		
struction of the build		
balance remaining		
Pulitzer (Joseph) Fu	nd for	
School of Journalism.		
R		
Reid (D. G.) Medical School (old) Addit		1,000.00
Rives (George L.)Barclay Window: St. Chapel		600.00
Rives (George L.)	ng and	000.00
Rebuilding)		10,000.00
Rives (George L.), Estate of . Medical School (Removin		
Rebuilding)		25,000.00
Robinson (M. R.)		25.00
Rockefeller Foundation Medical School (new) Build	ding 1925-28	1,051,828.80
Gift\$1,008		
Interest 43	3,495.47	
0.00		

\$1,051,828.80

Name	Purpose S	Date	Amount
	~	1914 1906 1913	500.00 600.00 1,000.00
Schermerhorn (F. Augustus)	Faculty House	1022-23	306,965.37
Schermerhorn (F. Augustus)		1922-23	27,552.48
	\$334,517.85		
	Building\$306,965.37 Equipment27,552.48		
	\$334,517.85		
Schermerhorn (F. Augustus)	Estate of	1929-30	1,235,957.00
	Schermerhorn Hall (changes) 84,561.10		
	\$1,235,957.00		
Schermerhorn (F. Augustus) Estate of	Physics Building. Bequest. \$262,993.25 Interest. 12,006.75	1926	275,000.00
	\$275,000.00		
	Schermerhorn Hall: Building Morningside Heights Site	1896-99	458,133.18 5,000.00
	School of Dentistry Building	1919-21	26,000.00
ment Fund (Income)	School of Dentistry Equipment Medical School (old) Additions	1921 1917 1920	5,584.92 25.00 3,384.00
	Van Am- ringe Memorial \$1,554.32		
	Avery Library 1,829.68		
	3,384.00		
	Balance (Gift Acct.) . \$2,080.17		
	. Medical School (old) Additions . Morningside Heights Site		500.00 5,000.00
Sloan (Samuel)	Torcheres: Library	1907	6,000.00
, , , , , , , , , , , , , , , , , , ,	terations and additions)		399,263.14

Name Purpose	Date	Amount
Smith (Lenox) Estate ofJohn Jay Hall Construction	1927	57,800.00
Bequest \$55,349.68		
Interest, etc 2,450.32		
\$57,800.00		
======================================		
Smith (Mrs. Munroe)Memorial Tablet to the late Professor Munroe Smith	1927	1,840.00
Sorchan (Mrs. Victor)Medical School (old) Additions	1917	1,000.00
Standard Optical CoOptical Instruments Stephens (Mrs. W. B. and	1920	60.00
Daughter)Mineral Specimens (Du Fourcq	4004	200.00
collection) Stetson (Francis Lynde)Kent Hall Building	1921 1905	300.00 10,000.00
Stewart (Lispenard)Lispenard Window: St. Paul's	1705	10,000,00
Chapel	1906	600.00
Stewart (Wm. Rhinelander)Rhinelander Window: St. Paul's	4006	600.00
Chapel Stokes (Olivia Egleston)	1906	000.00
Phelps)Toward purchase of East Field	1910	20,000.00
Stokes (Olivia Egleston Phelps		
and Caroline Phelps)St. Paul's Chapel Construction	1904-06 1917	250,000.00 1,000.00
Straight (Mrs. Willard D.) Medical School (old) Additions Straus (Oscar S.)	1917	1,000.00
Chapel	1906	500.00
Sulzberger (Dr. Nathan)Laboratory Equipment: Have-		
meyer Hall	1918 1917	600.00 50.00
Sutro (Mrs. Lionel)Medical School (old) Additions	1917	30.00
Т		
Thomas (Belle)Medical School (old) Additions	1917	25.00
Thomas (Belle)	1917 1918	25.00 2,500.00
Thompson (Mary Clark)Medical School (old) Additions V Van Amringe Memorial Com-	1918	2,500.00
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee	1918	
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee	1918	2,500.00
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Amringe Memorial Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, Wil-	1918 1917-22	2,500.00 18,684.02
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial CommitteeVan Amringe Memorial Van Cortlandt (Robt. B.)Van Cortlandt Window: St. Paul's Chapel Chapel	1918 1917-22	2,500.00 18,684.02
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial CommitteeVan Amringe Memorial Van Cortlandt (Robt. B.)Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.)Vanderbilt Clinic: Building and	1918 1917-22 1906	2,500.00 18,684.02 600.00
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee	1918 1917-22	2,500.00 18,684.02
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial CommitteeVan Amringe Memorial Van Cortlandt (Robt. B.)Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.)Vanderbilt Clinic: Building and	1918 1917-22 1906	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Amringe Memorial Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field	1918 1917-22 1906 1895 1920 1892 1910-14	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment Vanderbilt Clinic School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field Various Donors Casa Italiana, 437 W. 117th St	1918 1917-22 1906 1895 1920 1992 1910-14 1928	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 315,000.00
Van Amringe Memorial Committee	1918 1917-22 1906 1895 1920 1892 1910-14	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00
Van Amringe Memorial Committee	1918 1917-22 1906 1895 1920 1992 1910-14 1928	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 315,000.00
Van Amringe Memorial Committee	1917-22 1906 1895 1920 1892 1910-14 1928 Various	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 1,900.15
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Van Cortlandt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment Vanderbilt Clinic School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field Various Donors Casa Italiana, 437 W. 117th St Various Donors School of Dental and Oral Surgery, (New) Various Donors South Field Various (Interest on Gifts) Medical School (old) Additions	1918 1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18 1903-05 1918	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 1,900.15 26,000.00 54,707.00 95.49
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Amringe Memorial Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Vanderbilt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment Vanderbilt Clinic School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field Various Donors Casa Italiana, 437 W. 117th St Various Donors Columbia Stadium Site Various Donors School of Dental and Oral Surgery, (New) Various Donors South Field	1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18 1903-05	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 1,900.15 26,000.00 54,707.00
Thompson (Mary Clark) Medical School (old) Additions V Van Amringe Memorial Committee Van Cortlandt (Robt. B.) Van Cortlandt Window: St. Paul's Chapel Van Cortlandt (Cornelius, William K., Frederick W. and George W.) Vanderbilt Clinic: Building and Equipment Vanderbilt Clinic School of Dentistry Building Vanderbilt (Cornelius) Morningside Heights Site Vanderbilt (William K.) Toward purchase of East Field Various Donors Casa Italiana, 437 W. 117th St Various Donors School of Dental and Oral Surgery, (New) Various Donors South Field Various (Interest on Gifts) Medical School (old) Additions	1918 1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18 1903-05 1918	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 1,900.15 26,000.00 54,707.00 95.49
Van Amringe Memorial Committee	1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18 1903-05 1918 1901	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 250,000.00 1,900.15 26,000.00 54,707.00 95.49 50,000.00 1,000.00
Van Amringe Memorial Committee	1917-22 1906 1895 1920 1892 1910-14 1928 Various 1916-18 1903-05 1918 1901	2,500.00 18,684.02 600.00 350,000.00 7,500.00 100,000.00 315,000.00 1,900.15 26,000.00 54,707.00 95.49 50,000.00

Name	Purpose	Date	Amount
Watson (Thomas J.)	Medical School (old) Additions	1918	1,000.00
	School of Business Building Bequest \$1,000.00 Interest 116.28 \$1,116.28	1918	1,116.28
Williams (Blair S.)	School of Dental & Oral Surgery (new)	1927	214.86
			\$19,364,213.45

GIFTS AND BEQUESTS RECEIVED DURING 1929-1930

A. GIFTS TO CAPITAL:

1. General Endowment:

Alumni Fund Committee: For the Permanent Alumni Fund	\$13,500.00
Estate of Amos F. Eno for the Eno (Amos F.) Endowment Fund	
Estate of John Stewart Kennedy for the Kennedy (John Stewart) Endowment Fund	

\$388,781.33

2. Special Endowments:

Alumni Fund Committee:	
For the Alumni War Bonus Fund, represent	ing pro-
ceeds of War Bonus certificates of the follo	owing:
Addison (Michael)	\$24.00
Barker (Stephen)	8.00
Barsky (George)	42.00
Benjamin (Robert Hiles)	3.00
Buhler (Joseph S.)	2.00
Clark (A. Schuyler) deceased	494.00
Dreesbach (Philip P.)	17.00
Farrell (Thomas Joseph, Jr.)	22.00
Fidler (Peter Z.)	43.00
Gates (Merrill Newcomb) deceased	839.00
Greenberg (Louis)	13.00
Henderson (Frederick W.)	17.00
Herbert (William H.)	21.00
Jennings (Edward A.)	10.00
Johnston (Kalvin)	33.00
Kohnstamm (Lothair S.)	39.00
Lang (Joseph)	18.00
Levine (Leonard)	18.00
Levy (Lawrence L.)	18.00
Luckett (Dr. William H.) deceased	1,031.00
Mapes (Leland Russell)	38.00
McGill (Elisha L.)	28.00
Morrison (Roger L.)	43.00
Munroe (Robert K.)	44.00
Nudd (Howard W.)	9.00
Perez (Robert F.)	17.00
Posner (Herbert)	49.00
Reinheimer (Howard E.)	18.00
Rosenthal (Morris S.)	30.00
Simmons (Conrad C.)	32.00
Taylor (James Gordon)	9.00
Timmons (William J.)	4.00
Turner (Alva)	14.00
Wallach (Milton)	50.00
Weintraub (Paul)	18.00
Williams (Harry P.)	43.00
Yerkes (Harry A.)	38.00

3,196.00

From the Class of 1880, for the Columbiana Endowment Fund.....

5,000.00

From the Class of 1912 P. & S. for the Class of 1912	
P. & S. Fund	575.00
From the Class of 1920 for the Class of 1920 Columbia	
College Fund for Room in Hartley Hall	4,000.00
From I. W. Drummond for the Columbiana Endow-	
ment Fund	10.00
From Eberhard Faber for the Columbiana Endow-	
ment Fund	100.00
Anonymous, for the Draper Library Fund	2,000.00
Anonymous, to establish the Stanwood Cockey Lodge	
Foundation	90,281.25
Berg (William N.) for the principal of the William J.	
Gies Fellowship	50.00
Class of 1903 College, Mines and Fine Arts, to be added	
to the Student Loan Fund	12,000.00
Class of 1927 for the Class of 1927 Fund, representing	
proceeds of the life insurance policy of Palmer J.	
Wright, deceased	250.06
Cross (A. K.) Vision Training Fund, from the following:	
Barnes (Miss Florence) \$2.00	
Beakes (Miss Marjorie L.) 10.00	
Church (Miss Eugenia) 1.00	
Diemick (Joseph) 5.00	
Goldstein (Ruth)	
Hackett (Miss Grace P.) 10.00	
Healy (Francis J.)	
Hughes (Dr. Frederic John) 15.00	
Kaak (Mrs. Marie F.) 60.00	
Many (Mrs. P. C.)	
Margolf (William E.)	
McFrederick (Elsie T.) 5.00	
Montgomery (Mrs. Lorena V.) 550.00	
Roberts (Mrs. Ella)	
Russell (Frank E.)	
Scott (Mrs. C. E.)	
Sirnis (Miss Emily)	
Sutherland (Miss Christina R.) 5.00	
Traphagan (Mrs. Neilson S.) 3.50	751.00
	731.00
Davenport (Dr. S. Ellsworth, Jr.) for the School of	
Dental and Oral Surgery Endowment Fund	250.00
Davenport (Dr. S. E.) for the School of Dental and	
Oral Surgery Endowment Fund	500.00
Dexter (Mrs. Louise E.) to be added to the principal of	
the Katherine MacMahon Scholarship Fund	3,000.00
Dunning (Dr. William B.) for the School of Dental and	
Oral Surgery Endowment Fund	1,000.00
Estate of Frederick Bertuch for the Bertuch (Frederick)	62 102 20
Fund for Needy Students Estate of Bashford Dean for the Newberry (John S.)	63,102.30
	5,000.00
Prize Fund	3,000.00
Johnston) Fund	200,000.00
Estate of Otis W. Field, for the Field (Otis W.) Scholar-	_ 30,030,03
ship Fund	3,000.00
Estate of Mary B. Pell for the Pell (Mary B.) Legacy	6,530.05
Estate of Cora M. Perkins for the Castner (Hamilton	
Young) Fund	9.50

Estate of Harriet S. Phillips for the Phillips (Harriet S.) Fund for Barnard College Estate of Henry W. Sackett for the Sackett (Henry W.) Fund Hughes (Chief Justice) for the Columbiana Endowment Fund Merritt (Dr. Arthur H.) for the School of Dental and Oral Surgery Endowment Fund Murray (George Welwood), for the Murray (George Welwood) Fund	3,000.00 12,000.00 50.00 2,000.00 15,000.00	\$ 432,655.16
3. Buildings and Grounds:		
Classes of 1888 Arts and Mines, for a flag pole and flag for Baker Field	150.00	
Class of 1899, toward the cost of a flagpole and flag for Baker Field	132.02	
Class of 1900, toward the cost of a flag pole and flag for Baker Field	147.02	
Baker Field	146.71	
Baker Field	150.00	
Baker Field.	147.03	872.78
GIFTS TO INCOME: 1. For General Purposes: Alumni Fund Committee, for current expenses of the University	\$33,250.00 12,500.00 1,000.00 5,000.00 350.00	\$52,100.00
2. For Specific Purposes: Adler (Mrs. S. W.) to be added to the Adler Fund in the Medical School	\$2,500.00	

В.

Mayer (Charles H.) for the Moot Court	
Room	00
Morgan (William Fellowes) for Columbiana	00
For the following:	
P. & S. Labrador Station 1.	00
For the Jesse A. Locke Scholarship 400.	
	- \$1,191.00
Alumni and members of the teaching staff of the Colle	
of Physicians and Surgeons toward the purchase of t	
Huntington Memorial Library	
in the chemistry of perfumes and toilet articles	
American Academy of Ophthalmology and Oto-Laryn	
ology for ophthalmic research	2,000.00
Theatre	
Anonymous, for University Extension salaries	
Anonymous, for the Institute of Cancer Research	
Anonymous, for Library Staff salaries	980.00 ing 175.00
Anonymous, for a scholarship in Mechanical Engineeri Anonymous, for the Economic Geography Gift in t	he 175.00
School of Business	
Anonymous, for research in the Department of Patholo	gy 900.00
Anonymous, for research work in Meningitis to	
conducted by the Department of Neurology Anonymous, for research work in the Department	
Neurology	
Anonymous, for the study of Encephalitis by the I	De-
partment of Bacteriology	
Anonymous, for the Gies (William J.) Fellowship Anonymous, to be added to the Mary Louisa Sutliff Gi	
Anonymous, for the Special Tuberculosis Fund	
Anonymous, for the purpose of carrying on Clinics	in
individual psychology in the Medical School und	
the auspices of University Extension	
the University of a Bureau for research in statistics.	
Anonymous, for the Auditing Laboratory, Univers	ity
Extension	
Anonymous, toward the support of an American Sch of Indic and Iranian Studies	
Anonymous, for a Special Fellowship	
Astor (Vincent) for research work in the use of mov	
pictures for teaching purposes in the Medical School	
Auchincloss (Mr. and Mrs. Reginald) toward the p	
Bakelite Corporation for apparatus and supplies for	
holder of the Bakelite Fellowship	
Ball (Dr. Louise C.) for the income of the Gies (Willi	
J.) Fellowship Fund	
University Medals	
Baruch (Dr. Herman B.) for the Simon Baruch Found	
tion for the Department of Bacteriology	
Booth (J. Arthur) for Columbiana	
and Nutrition	

Bureau of Social Hygiene for the Study of Criminology	14,117.60
Bush (Professor Wendell T.) for Assistance and Supplies	
in the Department of Philosophy	4,527.12
Carnegie Corporation, for Fellowship in the School of	•
Library Service	6,000.00
	0,000.00
Carnegie Corporation, towards the maintenance of the	
School of Library Service	25,000.00
Carnegie Corporation, towards the purchase of the	
Huntington Memorial Library	5,000.00
C = 7(-1)	
Casa Italiana maintenance, from the following:	
Campagna (Anthony)\$2,000.00	
Champoli (H. E.)	
De Biasi (Dr. Bruno)	
De Luca (Giuseppe)	
Fanoni (Mrs. Emily)	
Fanoni (Dr. Vincenzo)	
Fiore (Dr. Letterio)	
Italian Savings Bank 500.00	
Palermo (I.)	
Paterno (Dr. Charles V.) 2,000.00	
Paterno (Joseph)	
Paterno (Michael E.)	
Perera (Lionella) 1,000.00	
Piracci (Dr. Sante)	
Pope (Gene)	
Portfolio (Almerindo) 1,000.00	
Scaturro (Dr. Antonio)	
Simonelli (P.)	
Tomasuolo (Dr. Cesare)	
Tresca (Dr. Ettore)	
20000	15,533.33
	10,000.00
Chamberlain (Joseph P.) for the Legislative Drafting	
Research Fund	\$2,000.00
Chamical Foundation Inc. (The) for research work in the	\$2,000.00
Chemical Foundation Inc., (The) for research work in the	4 04 5 00
Department of Bacteriology	4,315.00
Chemical Foundation Inc., (The) for research work in	
the Department of Biological Chemistry	20,000.00
Clarke (Judge William) for research in the Social	
Sciences	1,000.00
Class of 1909, for a Scholarship	400.00
Columbia University Club, for Columbia University	
Club Scholarships	6,250.00
Columbia University Library (For the) from the following	•
Barnouw (A. J.)\$5.00	
Bakeland (L. K.)	
Baldwin (Charles S.)	
Bigongiari (Dino)	
Brewster (William T.)	
Brown (Ernest C.)	
Caldwell (Otis W.)	
Campbell (William) 5.00	
Cunliffe (J. W.)	
Cutting (R. Fulton)	
Egbert (James C.)	
Erb (Frank C.) 5.00	
Erskine (John)	

Fackenthal (Frank D.) 5.00	
Fiske (Thomas S.)	
Fox (Dixon Ryan) 5.00	
Gildersleeve (V. C.)	
Goodsell (Willystine) 5.00	
Greene (Evarts B.)	
Hawkes (Herbert E.)	
Harper (R. A.)	
Hill (Patty S.)	
Knapp (Charles)	
Keyser (C. J.)	
Lawrence (William W.) 5.00	
Lucke (Charles E.) 5.00	
MacIver (R. N.)	
McCrea (Roswell C.) 5.00	
Mitchell (W. E.)	
Moore (John Bassett) 5.00	
Mudge (Isadore G.) 5.00	
Nutting (N. A.)	
Pegram (George B.)	
Prescott (Harriett B.) 5.00	
Sachs (Julius)	
Simkhovitch (Vladimir) 5.00	
Stockder (Archibald H.) 5.00	
Thorndike (A. H.)	
Van Arsdale (Mary B.) 5.00	
Wills (Albert P.)	
	\$400.00
Committee of the Citizens of Holland, for the salary of	A 4 000 00
the Queen Wilhelmina Professor	\$4,000.00
the Queen Wilhelmina Professor	
the Queen Wilhelmina Professor	\$4,000.00 2,950.00
the Queen Wilhelmina Professor	
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of	
the Queen Wilhelmina Professor	2,950.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research. Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship"	
the Queen Wilhelmina Professor	2,950.00
the Queen Wilhelmina Professor. Committee on Research in Indian Languages, for Social Science Research. Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship". Commonwealth Fund, for research in the School of Dental and Oral Surgery.	2,950.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery Corlite Corporation, for research work in the Civil	2,950.00 1,800.00 17,800.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery Corlite Corporation, for research work in the Civil Engineering Testing Laboratories	2,950.00 1,800.00 17,800.00 3,675.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research. Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery. Corlite Corporation, for research work in the Civil Engineering Testing Laboratories Cowen (David) for Neurological Research	2,950.00 1,800.00 17,800.00 3,675.00 250.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery Corlite Corporation, for research work in the Civil Engineering Testing Laboratories Cowen (David) for Neurological Research Crampton (Susan C.) for the Mary Louisa Sutliff Fund	2,950.00 1,800.00 17,800.00 3,675.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery Corlite Corporation, for research work in the Civil Engineering Testing Laboratories Cowen (David) for Neurological Research Crampton (Susan C.) for the Mary Louisa Sutliff Fund Cravath (William B.) to be added to the Special Tuber-	2,950.00 1,800.00 17,800.00 3,675.00 250.00 10.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery Corlite Corporation, for research work in the Civil Engineering Testing Laboratories Cowen (David) for Neurological Research Crampton (Susan C.) for the Mary Louisa Sutliff Fund Cravath (William B.) to be added to the Special Tuberculosis Gift	2,950.00 1,800.00 17,800.00 3,675.00 250.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery Corlite Corporation, for research work in the Civil Engineering Testing Laboratories. Cowen (David) for Neurological Research. Crampton (Susan C.) for the Mary Louisa Sutliff Fund Cravath (William B.) to be added to the Special Tuberculosis Gift Davis (G. Richard) for research in the Department of	2,950.00 1,800.00 17,800.00 3,675.00 250.00 10.00 500.00
the Queen Wilhelmina Professor. Committee on Research in Indian Languages, for Social Science Research. Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship". Commonwealth Fund, for research in the School of Dental and Oral Surgery. Corlite Corporation, for research work in the Civil Engineering Testing Laboratories. Cowen (David) for Neurological Research. Crampton (Susan C.) for the Mary Louisa Sutliff Fund. Cravath (William B.) to be added to the Special Tuberculosis Gift. Davis (G. Richard) for research in the Department of Neurology.	2,950.00 1,800.00 17,800.00 3,675.00 250.00 10.00
the Queen Wilhelmina Professor Committee on Research in Indian Languages, for Social Science Research Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship" Commonwealth Fund, for research in the School of Dental and Oral Surgery Corlite Corporation, for research work in the Civil Engineering Testing Laboratories. Cowen (David) for Neurological Research. Crampton (Susan C.) for the Mary Louisa Sutliff Fund Cravath (William B.) to be added to the Special Tuberculosis Gift Davis (G. Richard) for research in the Department of	2,950.00 1,800.00 17,800.00 3,675.00 250.00 10.00 500.00
the Queen Wilhelmina Professor. Committee on Research in Indian Languages, for Social Science Research. Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship". Commonwealth Fund, for research in the School of Dental and Oral Surgery. Corlite Corporation, for research work in the Civil Engineering Testing Laboratories. Cowen (David) for Neurological Research. Crampton (Susan C.) for the Mary Louisa Sutliff Fund. Cravath (William B.) to be added to the Special Tuberculosis Gift. Davis (G. Richard) for research in the Department of Neurology.	2,950.00 1,800.00 17,800.00 3,675.00 250.00 10.00 500.00
the Queen Wilhelmina Professor. Committee on Research in Indian Languages, for Social Science Research. Committee in charge of the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania for the "Dr. J. Packard Laird Fellowship". Commonwealth Fund, for research in the School of Dental and Oral Surgery. Corlite Corporation, for research work in the Civil Engineering Testing Laboratories. Cowen (David) for Neurological Research. Crampton (Susan C.) for the Mary Louisa Sutliff Fund. Cravath (William B.) to be added to the Special Tuberculosis Gift. Davis (G. Richard) for research in the Department of Neurology. Deutsches Haus Maintenance, from the following:	2,950.00 1,800.00 17,800.00 3,675.00 250.00 10.00 500.00
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General Education Board, for the maintenance of the De-	*** ***
partment of Practice of Medicine	\$20,000.00
General Education Board, for the maintenance of a sub-	
department of Tropical Medicine in the College of	
Physicians and Surgeons	15,000.00
General Education Board, for the Council for Research	
in the Humanities	37,500.00
Goodman (Edwin) for research work in the Department	
of Neurology	250.00
Grace (Miss Louise N.) for the work of the De Lamar	
Institute of Public Health	5,000.00
Grace (Joseph P.) for Special Scholarship Aid in Co-	
lumbia College	450.00
Grace (W. R.) for Special Scholarship Aid in Columbia	
College	450.00
Griscom (Mrs. Clement A.) for Library Books and	
Serials	87.00
Hammond (John Henry) for research work in the use of	
moving pictures for teaching purposes in the Medical	
School	50.00
Harmon (Arthur Loomis) toward the tuition fees of a	30.00
	400.00
designated student in the School of Architecture	400.00
Hays (Mrs. Walter) to be added to the income of the	* 000 00
Hays (Walter) Memorial Fund	1,000.00
Harrison (W. K.) for work in Architecture, University	
Extension	325.00
Harrison (W. K.) for Scholarship Aid in the School of	
Architecture	200.00
Hartley Corporation (The) for the Marcellus Hartley	
Laboratory	2,600.00
Hartley Corporation (The) in support of work in the	
Department of Psychiatry	3,500.00
Heide (Henry) for the purchase of German Books	100.00
Hess (Dr. Alfred F.) for the Nutritional Research Gift	
in the Department of Pathology	3,350.00
Hess (Mrs. Alfred F.) for the Oto-Laryngological Re-	
search Fund	500.00
Hess (Mrs. Sara Strauss) for the Oto-Laryngology Gift	500.00
Hodenpyl (Anton G.) for the purchase of German Books.	25.00
International Committee, for the Milbank Infantile	
Paralysis Gift	
Jackson (A. V. Williams) toward the support of the pro-	
posed American School of Indic and Iranian Studies	75.00
Jaffe (John) for the Department of Accounting in the	
School of Business	20.00
Janssen (Henry) for the purchase of German Books	100.00
Janssen (Henry) for the Germanic Review	100.00
	100.00
Kahn (Otto H.) for the purchase of German Books	
Keller (Mr. and Mrs. Miner S.) for the work of the In-	
stitute of Cancer Research	
King's Crown, for band instruction through the Depart-	
ment of Music	
Loeb (James) for the purchase of books for the Library	
Low (William G.) for the purchase of books on Maritime	
and International Law	
Marcus (Bernard K.) for the Joseph S. Marcus Memoria	
Scholarship in the School of Business	
Marcus (Bernard K.) for research work in the Depart-	
ment of Anthropology	5,000.00

M. (1 (7) THE TAIL OF 1 5	
Matheson (Dr. William J.) for research in the Study of	2 200 00
Encephalitis in the Department of Bacteriology	2,000.00
Meyer (Max) for research work in the Department of Neurology	250.00
Mead, Johnson & Co., for special research work in the	230.00
	3,500.00
Department of Pathology	3,300.00
Memorial Fund	50.00
Mitchell (C. Stanley) for scholarships in the School of	30.00
Business	350.00
Moley (Professor Raymond C.) for the Legislative	550.00
Drafting Research Fund	475.92
Montgomery (Colonel R. H.) for the purchase of books	2.0.,2
for the Library	400.00
Montieth & Co., for the special Meningitis Gift in the	
Department of Neurology	3,000.00
National Research Council, for Special Research in the	
Department of Anatomy	4,713.00
National Research Council, for work at the Crocker	
Laboratory	900.00
National Research Council, for Social Science Research.	300.00
National Tuberculosis Association, for Research Work	
in connection with Tuberculosis	5,047.71
New York Milk Conference Board, for research work in	
the DeLamar Institute of Public Health	8,000.00
New York State Library Association, Inc., toward the	
maintenance of Scholarships in the School of Library	
Service	900.00
Oberlander (Gustav) for the purchase of German books	100.00
Oberlander (Gustav) for the Germanic Review	100.00
O'Reilly (William T.) to be added to scholarship funds	
of Columbia College	425.00
Parsons (Mrs. Elsie Clews) for research in the Social	
Sciences	2,500.00
Parsons (J. Russell) for Research in the Department of	
Neurology	100.00
Paterno (Dr. Charles V.) for Casa Italiana Incidentals	663.44
Paterno (Dr. Charles V.) for Library Staff salaries	1,384.85
Phillips (Lloyd) for research in the Department of	
Neurology	100.00
Pollock (Henry W.) for the publication of meritorious	
manuscripts dealing with Legal Topics	200.00
Pratt (Mrs. Ruth Baker) for the study of political pre-	
diction under the direction of the Council for Research	1 000 00
in the Social Sciences	1,000.00
Prince (Theodore) for research work in the use of moving	100.00
pictures for teaching purposes in the Medical School Rockefeller Foundation, for research in Medical My-	100.00
cology	13,000.00
Rockefeller Foundation, for supervision of students en-	13,000.00
gaged in practical research and field work at Green-	
wich House	7,500.00
Rockefeller Foundation, for equipment and supplies for	,,000.00
the Department of Chemistry	150.00
Rockefeller Foundation, for Social Science Research	71,300.00
	71,300.00
Rockefeller Foundation, for study of compensation for	
automobile accidents	30,000.00
Rockefeller Foundation, for the study of Familial Law	7,665.04

Rosenthal (A. S.) for the Rosenthal Fund for Medical	
Research	2,500.00
Special Meningitis Gift	1,000.00
of Business	300.00
Sargent (Homer E.) for Social Science Research	500.00
Satterlee (Herbert L.) to cover the cost of an oil painting	
of Admiral Hardy	800.00
Seligman (Mrs. Isaac N.) to be added to the income of	
the Social and Political Ethics Professorship Fund	873.54
Seligsberg (Messrs.) and Company, for special scholar-	
ship aid in Columbia College	525.00
Silverberg (Miss Flora K.) for research in the Depart-	100.00
ment of Neurology	100.00
Simpson (Miss Ray) for the Mary Louisa Sutliff Gift for the School of Library Service	5.00
Singer (Saul) for a scholarship in the School of Business	350.00
Smith (Miss Esther L.) for research in the Department	330.00
of Neurology	10.00
Smith (Professor J. Russell) to be added to the Economic	
Geography Gift in the School of Business	1,458.33
Smith (Mrs. Munroe) for the purchase of new prayer	
books for St. Paul's Chapel	422.50
Smyth (David W.) for a scholarship in Columbia College	525.00
Social Science Research Council for the following pur-	
poses:	
For a study of Labor Law Adminis-	
tration\$12,189.16	
For a study of Racial and Social Differ-	
ences in Mental Ability of the Negro. 5,208.68	
For a legal and economic study of	
recent developments of business cor-	
porations	24 710 57
	24,710.57
Speyer (Mrs. Edgar) for the purchase of German Books	
for the Library	100.00
Starr (Dr. M. Allen) for the Department of Neurology	1,000.00
Steinbach (Dr. M. Maxim) to be added to the Friedman	100.00
Gift for Tuberculosis	100.00
Medical Research	100.00
Stiefel (Carl F.) for the purchase of German Books	100.00
Stroock (Bertram A.) for the Louis S. Stroock Scholar-	
ship	125.00
Stroock (Sylvan I.) for the Louis S. Stroock Scholarship	125.00
Students of the 1929 Summer Session for the Summer	
Session Entertainment Fund	1,287.80
Swift (Dr. Walker E.) toward the purchase of the Hun-	
tington Memorial Library	25.00
Thalmann (Paul) for the Columbia University Orchestra	1,350.00
Thompson (William Boyce) for the Departments of	100 250 00
Civil Engineering and Mining and Metallurgy Thun (Ferdinand) for the purchase of German Books	109,250.00
Thun (Ferdinand) for the Germanic Review	100.00
Todd (Mrs. Henry A.) for the Romanic Review	300.00
Tucker (Mr. & Mrs. Carll) for the Department of	200,00
Surgery	10,000.00

Walker-Gordon Laboratory Company, for research in 12,500.00 food chemistry and nutrition..... Wanger (Mr. & Mrs. Walter F.) for research in the De-100.00 Wawepex Society, for the John D. Jones Scholarship 200.00 535.00 Weeks (Harold H.) for a scholarship in Columbia College Wheeler (Dr. John M.) for the Ophthalmology Special 1,000.00 Research Gift..... Wood (Mr. & Mrs. Willis D.) for the Department of 2,500.00 Bacteriology.....

709,790.63

\$1,584,199.90

C. OTHER GIFTS:

Albee (Edward F.) et al. Portrait of Bernard Iddings Bell.

Alumni of Columbia College holding appointments in the University, (Group of).

Gift of an Honor Roll of Columbia people who lost their lives in the World War.

Alumni of the School of Architecture (Group of). Portrait of James Renwick, Jr. Alumni of Engineering Schools (Group of). Portrait of Horatio Allen.

Anonymous. Portrait of Oliver Wolcott Gibbs.

Borg (Sydney C.) et al. Portrait of Edwin R. A. Seligman.

Brewster (Mrs. William T.). Portrait of George R. Carpenter.

Portrait of Ashley H. Thorndike.

Brown (Mrs. C. A.). Valuable X-Ray equipment belonging to her late husband, for use in the Department of Physics.

Bruce (Mrs. Lucy Craven) et al. Portrait of Alfred Wingate Craven.

Canfield (Mrs. James H.). Portrait of James H. Canfield.

Chamberlain (Dr. Joseph P.) et al. Portrait of Charles A. Beard.

Class of 1896. Portrait of Lewis Morris.

Class of 1899. Portrait of John Jav.

Class of 1902. Portrait of Clement Clarke Moore.

Class of 1909. Portrait of William Livingston.

Class of 1911. Portrait of Gulian Crommelin Verplanck.

Class of 1912. Portrait of James Duane.

Class of 1914. Portrait of Alexander Hamilton.

Colmo (Dr. Alfredo). Important collection of Argentine books and publications for use in the Law Library.

Crane (Charles R.) et al. Portrait of Edmund B. Wilson.

Craven (Thomas T. T.) et al. Portrait of Alfred Wingate Craven.

Cuthell (Chester W.). Portrait of Egbert Benson.

Dale (Samuel S.). Important weights and measures library together with his English Tally Stick and his hall clock.

Darlington (Rev. Dr. Henry) et al. Portrait of Bernard Iddings Bell.

Davison (George W.) et al. Portrait of Frederick Paul Keppel.

Dunn (J. A.). Five small parcels of diamonds for the Mineralogical Museum.

Earle (Mrs. Mortimer L.). Satin waist-coat of Dr. Samuel Nicoll, Professor of Chemistry and Practice of Medicine from 1792 to 1794 and Trustee from 1795 to 1796.

Foresti (Mr. and Mrs. Ludwig G.). Portrait of E. Felix Foresti.

Frissell (Algernon S.) et al. Portrait of Edmund B. Wilson.

Goodridge (Mrs. Frederic Grosvenor). Import and valuable collection of deeds, wills and other papers of the Colonial period known as the Philipse Gouverneur Collection.

Harison (William) et al. Dr. William H. Harison, William Montgomery Harison, Mrs. Harison Phinizy and the Misses Gertrude and Elizabeth Harison. Portrait of Richard Harison.

Jay (Peter Augustus). Portrait of Peter Augustus Jay.

Jenkins (Mrs. Helen Hartley) et al. Portrait of Michael I. Pupin.

Johnstone (Mrs. J. Humphreys). Important collection of autograph letters belonging to her sister, Miss Emily Lazarus, together with two portraits of Miss Lazarus.

Jones (Mrs. Nina Craven) et al. Portrait of Alfred Wingate Craven.

Keppel (David) et al. Portrait of Frederick Paul Keppel.

Keppler (Emil A. C.). Collection of financial books and publications for the School of Business Library.

Kornis (Dr. Julius), Secretary of State, Ministry of Cults and public instruction, Budapest, Hungary. Oil Portrait of Stephen Werboczy, eminent Hungarian Statesman and Lawyer of the Early Sixteenth Century, the portrait to be added to the collection in the Law School.

Lamont (Thomas W.) et al. Portrait of Edwin R. A. Seligman.

Lee (Professor Frederic S.) et al. Portrait of Edmund B. Wilson.

Leffingwell (R. C.) et al. Portrait of Frederick Paul Keppel.

Lewisohn (Sam A.) et al. Portrait of Charles A. Beard.

Lord (Professor Herbert Gardiner). His library of books on Philosophy.

Lydig (Estate of Philip M.). Historical material consisting of the commissions of an officer in the American Army issued to his father, Colonel Philip Mesier Lydig, and signed by Presidents Abraham Lincoln and Andrew Jackson; and his two fighting swords.

Matheson (Dr. William J.). Valuable set of Saccardo's "Sylloge Fungorum" for the School of Tropical Medicine.

Matthews (Mrs. Agnes Rounds) et al. Important collection of about 100 volumes of reprint, Court of Appeals, Reports of New York State for use in the Law School Library.

Morgenthau (Henry) et al. Portrait of Edwin R. A. Seligman.

Norris (Dr. Charles). Oil Painting of the late Alexander Hodgson Stevens, M.D., LL.D., Professor of Surgery in the College of Physicians and Surgeons from 1835 to 1838 and President of the College from 1841 to 1855.

Odell (Herbert R.). Portrait of his father, former Governor Benjamin B. Odell.

Osborn (Mrs. Henry Fairfield). Portrait of Henry Fairfield Osborn.

Pine (Mrs. John B.). Portrait of John B. Pine.

Princeton University (The Trustees of). Collection of fine architectural casts made by the Princeton Expedition to Syria.

Pupin (Professor Michael I.) et al. Portrait of Michael I. Pupin.

Raskob (John J.) et al. Portrait of Edwin R. A. Seligman.

Root (Elihu) et al. Portrait of Frederick Paul Keppel.

Rounds (Miss Katherine E. O. and Ralph S.) et al. Important collection of about 100 volumes of reprint, Court of Appeals, Reports of New York State for use in the Law School Library.

Sanger (William. Painting of the Gate of Glory, San Diego de Compestella, Spain.

Schermerhorn (Alfred E.). Portrait of William Colford Schermerhorn.

Schiff (Mortimer L.) et al. Portrait of Edwin R. A. Seligman.

Seixas (Gershom Mendes) Descendants of. Portrait of Gershom Mendes Seixas.

Seligman (Isaac N.) et al. Portrait of Edwin R. A. Seligman.

Straus (Jesse) et al. Portrait of Edwin R. A. Seligman.

Tammany Society. Portrait of John Ferguson.

Taylor (Henry Osborn) et al. Portrait of Edmund B. Wilson.

Thorne (Mrs. Doris). Manuscript of the play "Judah" written by her father, the late Henry Arthur Jones.

Trinity Parish (The Vestry of). Portrait of John Henry Hobart.

Portrait of Samuel Provoost.

United Daughters of the Confederacy (The). Portrait of John Slidell.

Various Donors:

Portrait of Jackson Kemper. Portrait of William A. Dunning.

Portrait of James F. Kemp.

Portrait of Franklin H. Giddings. Portrait of William Darrach. Portrait of William P. Trent. Portrait of Frederick J. E. Woodbridge. Portrait of John Dewey. Portrait of James C. Egbert.

Warburg (Paul M.) et al. Portrait of Edwin R. A. Seligman. Warburg (Felix M.) et al.

Waterbury (Nelson J.). Important and interesting letters written to his father, by Samuel J. Tilden, Silas Wright, Horatio Seymour and Horace Greeley.

Whittlesey (Mrs. Willis S.) et al. Portrait of Alfred Wingate Craven.

Winton Engine Company. Two-cylinder Winton Diesel engine for the department of Mechanical Engineering.

Wise (Rev. Dr. and Mrs. Stephen S.). Portrait of Richard J. H. Gottheil.

Wittpenn (Mrs. Caroline B.). Portrait of John Stevens.

Yale University Press. Certain books published by the Yale University Press in recent years in the fields of government and industrial relations, the gift being made as a memorial to Chief Justice William Howard Taft and former President Arthur Twinnig Hadley.

> FREDERICK A. GOETZE, Treasurer.

New York, June 30, 1930.



FINANCIAL REPORT OF BARNARD COLLEGE 1929–1930



		В.	ARN	ARD	COLLE	GE		177		
		\$4,861,920.35	3,717,788.04							155,184.21
JRPLUS	\$2,898,923.80 1,408,767.63 ty 427,431.42 126,797.50	Funds	3,708,627.46	\$22,298.32	19,260.48	\$41,558.80	113,625.41			
LIABILITIES AND SURPLUS	owment and Special Funds: Indowment Funds, Unrestricted as to Income Inc	Total Endowment and Special Funds . I. Funds: Diege Grounds Fund oliege Buildings Fund Miege Equipment Fund .	in Plant—Per	ent Liabilities and Surplus: texpended Moneys for Designated Purposes nnce Receipts:	\$6,241.50 3,555.00 9,463.98	\$122,785.99	cess of Current Assets and Deferred Charges over Current Liabilities			Total Current Liabilities and Surplus.
LIABILIT	Special Fund Funds, Unres Funds, Resti Fund, Subjectio Ai	wment and Sp ds Fund ngs Fund ment Fund .	Funds	Moneys for	udents Koom Deposits, 1939—1931. udents' Room Deposits and Rent—Summer Session Immer School for Women Workers in Industry	rotal Current Liabilities riplus Account	rrent Assets a			nt Liabilities
	Endowment and Special Funds: Baldowment Funds, Unrestricted as to Income. Endowment Funds, Restricted as to 1,408,767.63 Endowment Fund, Subject to Annuity Agreement Special Fund, Subject to Annuity Procial Fund, Subject to Annuity Agree- Income	Total Endowment and Special Funds Plant Funds: College Grounds Fund College Buildings Fund College Equipment Fund Special Funds Invested in Hewitt Hall	Total Plant Funds	Current Liabilities and Surplus: Unexpended Moneys for Designated Purposes Advance Receipts:	Students, Room Deposits, Students, Room Deposits and Rent—Summer Session Summer School for Women Workers in Industry	Total Current Liabilities Surplus Account	Excess of Current Assets and Deferred Charges over Current Liabilities			Total Curre
	\$4,861,920.35	3,717,788.04		<u> </u>						155,184.21
		\$1,165,000.00 2,357,935.23 194,852.81			\$131,537.31		10,686.87			12,960.03
ASSETS	owment and Special Fund Assets: vestment Securities, at Book Values . \$4,860,077.14 sah Awaiting Investment: United States Trust Compan—Capital Account . \$1,782.21 United States Trust Company—Post Account . 61.00 1.843.21 Total Endowment and Special Fund Assets		\$58,137.31	65,000.00	6,000.00	\$5,825.21 3,000.00 1,200.00 620.00	41.66	\$462.40 1,275.05 2,315.93	331.11	8,249.74
	owment and Special Fund sustaints Securities, at Box sah Awaiting Investment: United States Trust Com- pany—Capital Account United States Trust Com- pany—Post Account	transets: niddings niddings tupment seeks, at Book Values ent Assets and Deferred Charges:	New York Trust Com- pany—Regular Account New York Trust Com-	Party Time Deposit Account Corn Exchange Bank Trust Company—Reg- ular Account	Trust Company— Wages Account rust Exchange Bank Trust Company—Sum-	ible: ice Examina- i Committee cil	ociation	d Moneys for Appropriate Troop and Sup- resorted Troop and Sup- resurance	ndustry	Assets and De
	Endowment and Special Fund Assets: Investment Securities, at Book Values . \$4,860,077.14 Cash Awaiting Investment: United States Trust Com- pany—Post Account . 61.00 I.843.21 Total Endowment and Special Fund Assets	riant Assets: Grounds Buildings Equipment Equipment Total Plant Assets, at Book Value Current Assets and Deferred Charges:	New York Trust Company—Regular Account	Account Corn Exchange Trust Company-ular Account .	Trust Company Mages Account Corn Exchange Trust Company mer School	Accounts Receivable: College Entrance Examination Board Students Loan Committee Alumnae Council Unpaid Fees	Annuity Association	Overexpended Moneys for Overexpended Moneys for Designated Purposes pluventories—Food and Supplies Unexpired Insurance Summer School for Women	Workers in Industry Summer Session Redecoration of Blue Room	in Brooks Hall 8,249.74 Total Current Assets and Deferred Charges
	En	C H				A NATE	ر د		, OJA	

BARNARD COLLEGE—INCOME AND EXPENSE ACCOUNT—GENERAL FUNDS

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	\$820,687.04	\$873,006.45
\$649,369.40 Educational Administration and Instruction \$513,999.12 196,102.44 Buildings and Grounds Maintenance 256,389.35 1,250.00 Library 22,202.09 26,284.61 Business Administration 11,677.98 Annuities 12,700.00 Loss on Operation of Lunch Room 3,718.50	Total Expenses. Balance, being Excess of Income over Expenses for Maintenance for Fiscal Year ended June 30, 1930.	, "
From Students' Fees \$649,369,40 From Endowments 196,102,44 From Receipts for Designated Purposes 1,250,00 From Miscellaneous Sources 26,284,61		\$873,006.45

BARNARD COLLEGE

PRINCIPAL OF SPECIAL FUNDS, JUNE 30, 1930

A. For General Endowment

ANDERSON (MRS. ELIZABETH MILBANK) FUND: Legacy from the estate of Mrs. E. M. Anderson. Established 1922	\$40,715.13
BROWN (DELPHINE) FUND: Legacy from the estate of the late Delphine Brown. Until otherwise ordered by the Board of Trustees, the income of the fund is to be applied to the general expenses of the College. Established 1929.	52,002.59
BURGESS (ANNIE P.) FUND: Legacy from the estate of the late Mrs. Annie P. Burgess. Established 1913. (See Burgess Fund under Section C—"For Construction and Equipment of Buildings.")	375.00
CARPENTER (HENRIETTA) FUND: Gift of General H. W. Carpentier, in memory of his mother, toward the Endowment Fund of Barnard College. The income of the fund is to be used for the payment of an annuity. Established 1898, 1900, 1911, 1913, 1914, and 1915	427,431.42
CARPENTIER (H. W.) ENDOWMENT FUND: Legacy from the estate of General H. W. Carpentier. Established 1919.	1,369,979.86
CHOATE (MRS. JOSEPH H.) ENDOWMENT FUND: Gift of Mrs. Joseph H. Choate for endowment. Established 1918	38,541.86
FISKE FOUNDERSHIP FUND: Gift of the late Mrs. Martha T. Fiske-Collord, in memory of Mr. Josiah M. Fiske. The income of the fund is to be applied to the running expenses of the College	5,444.80
FISKE HALL FUND: Legacy from the estate of the late Mrs. Martha T. Fiske-Collord, the income of which is to be applied to the care, maintenance, and improvement of Fiske Hall. Established 1910	503,199.45
GEER FUND: A memorial to Mrs. Helen Hartley Jenkins Geer made by the Class of 1915. Established 1920	5,391.62
GENERAL ENDOWMENT FUND	506,005.19
GIBBES FUND: Legacy from the estate of the late Emily O. Gibbes. The income of the fund is paid for life to Edwina M. Post. Established 1908	126,797.50
HARRIMAN FUND: Gift of Mrs. E. H. Harriman to establish a fund, the income therefrom to be used for physical education and development, or to meet the deficit in running expenses. Established 1914	105,237.88
HERRMAN FOUNDERSHIP FUND: Gift of the late Mrs. Esther Herrman. The income of the fund is to be applied to the general needs of the College	4,928.60
MUNN (ANNE ELDER) MEMORIAL FUND: Gift of Mrs. I. Sheldon Tilney in memory of her mother. The income is to be used at the discretion of the Trustees. Established 1918.	7,346.15

241,860.61	ROCKEFELLER (JOHN D.) ENDOWMENT FUND: Gift of Mr. John D. Rockefeller toward the permanent endowment of Barnard College. Established 1901
51,836.38	SAGE (RUSSELL) MEMORIAL FUND: Legacy from the estate of Mrs. Russell Sage. Established 1920. (See Russell Sage Memorial Fund under Section C—"For Construction and Equipment of Buildings")
4,877.42	SANDERS (ELEANOR BUTLER) FOUNDERSHIP FUND: Legacy from the estate of the late Mrs. Henry M. Sanders. The income of the fund is used for the current needs of the College. Established
10,050.62	SMITH (ANNA E.) FUND: Legacy from the estate of Anna E. Smith. Established 1916
20,751.00	STRAIGHT FUND: Gift of Mrs. Willard Straight. Established 1920
	STOKES (OLIVIA E. P.) ENDOWMENT FUND: Legacy from the estate of the late Olivia E. P. Stokes. The income of the fund is to be applied to the uses and purposes of the College.
420,002.26	Established 1929
3,799.13	Legacy from the estate of Emma A. Tillotson. Established 1910
	WOERISHOFFER FUND: Gift of Mrs. Charles Woerishoffer for endowment. Established 1913,
	1917
\$3,956,352.17	
\$3,956,352.17	B. For Designated Purposes
\$997.50	B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be
\$997.50 4.732.50	B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924 ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage
\$997.50 4.732.50 1,004.80	B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924 ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage the study of the German language and literature. Established 1925 ALDRICH (MARY GERTRUDE EDSON) SCHOLARSHIP FUND:
\$997.50 4,732.50 1,004.80 3,015.63	B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924 ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage the study of the German language and literature. Established 1925 ALDRICH (MARY GERTRUDE EDSON) SCHOLARSHIP FUND: Gift of Mrs. James Herman Aldrich. Established 1916 ALUMNAE SCHOLARSHIP FUND: Gift of the Class of 1912 the income of which is to be used for scholarships.
\$997.50 4.732.50 1,004.80 3,015.63	B. For Designated Purposes ADAIR (WILLIAM R. AND MARTHA S.) FUND: Legacy from the estate of Helen Adair, to establish a fund in memory of her father and mother. The annual income of the fund is to be used for the purchase of books for the library. Established 1924 ADAMS (EDWARD DEAN) FUND: Gift of Mr. Edward Dean Adams. The income is to be used to encourage the study of the German language and literature. Established 1925 ALDRICH (MARY GERTRUDE EDSON) SCHOLARSHIP FUND: Gift of Mrs. James Herman Aldrich. Established 1916 ALUMNAE SCHOLARSHIP FUND: Gift of the Class of 1912 the income of which is to be used for scholarships. Established 1923

BARNARD SCHOOL SCHOLARSHIP FUND: Gift of the alumnae of the Barnard School for Girls. Established 1916.	4,019.20
BENNETT (EDNA HENRY) MEMORIAL SCHOLARSHIP FUND: Gift of friends of the late Mrs. Edna Henry Bennett. The income of the fund is to be used to aid such Barnard students as the Department of Zoölogy may recommend in carrying on their studies at the Marine Biological Laboratory at Woods Hole, Massachusetts. Established 1927	1,640.35
BOGERT (ANNA SHIPPEN YOUNG) SCHOLARSHIP FUND: Legacy from the estate of Mrs. Annie P. Burgess. The annual income is to defray the tuition and expenses of a worthy pupil who is unable to pay her own expenses. Established	5,015.28
BOGERT (CHARLES E.) SCHOLARSHIP FUND: Legacy from the estate of Mrs. Annie P. Burgess. The annual income is to defray the tuition and expenses of a worthy pupil who is unable to pay her own expenses. Established 1913	3,699.30
BREARLEY SCHOOL SCHOLARSHIP FUND: Gift of pupils of the Brearley School for a scholarship to be awarded annually to a student who deserves assistance. Established 1899	3,000.00
BRENNER (MARTHA ORNSTEIN) SCHOLARSHIP FUND: Gift in memory of Martha Ornstein Brenner, Class of 1899, by her friends. Established 1915	3,757.50
BROOKS (ARTHUR) MEMORIAL FUND: Gift of Olivia E. Phelps Stokes as a memorial to the late Reverend Arthur Brooks, D.D., Rector of the Church of the Incarnation and Chairman of the Board of Trustees of Barnard College during	
the first six years of the existence of the College. The income of the fund is to aid needy and deserving students of the College. Established 1897	4,779.67
CARPENTIER SCHOLARSHIP FUND: Legacy from the estate of General H. W. Carpentier for scholarships. Established 1919	214,303.43
CHISHOLM (ELIZA TAYLOR) MEMORIAL SCHOLARSHIP FUND Gift of the Alumnae Association of Miss Chisholm's School for a scholar- ship, to be awarded annually by the Committee on Scholarships of the Faculty to a student in need of assistance, said Alumnae Association reserving the privilege of precedence for such candidates as they may recommend. Established 1901	1,556.75
CLARK (THOMAS F.) STUDENTS LOAN FUND Legacy from the estate of Mrs. Fanny Foster Clark. The income of the fund is to be loaned to needy students. Established 1928	100,000.00
CLARKSON (JENNIE B.) SCHOLARSHIP FUND: Gift of the late Mrs. W. R. Clarkson for a scholarship to be awarded annually to a student who deserves assistance. Established 1898	3,026.00
COE (MRS. HENRY CLARKE) SCHOLARSHIP FUND: Gift of the National Society of New England Women for a scholarship to be awarded on the nomination of the Chairman of the Scholar- ship Committee of the above society, to a student from New England	
or of New England parentage. Established 1904	3,765.00

600.00	1896 LIBRARY FUND: Gift of the Class of 1896 of Barnard College on the thirtieth anniversary of their graduation. The income of the fund is to be used for the purchase of books for the library. Established 1926
5,000.00	ENGLISH SCHOLARSHIP FUND: An anonymous gift. Established 1920
5,413.00	FISKE SCHOLARSHIP FUND: Gift of the late Mrs. Martha T. Fiske-Collord, the income of which is to be placed at the disposal of the Dean of Barnard College. Established 1895
2,914.96	FISKE (MARTHA T.) SCHOLARSHIP FUND: Gift of Anna E. Smith, for a non-resident scholarship in memory of Mrs. Martha T. Fiske-Collord. Established 1911
2,453.33	GALWAY FUND: Gift of an anonymous donor for a scholarship. Established 1912
2,121.30	GOLDFRANK (IRMA ALEXANDER) FUND: Gift of friends of Mrs. Irma Alexander Goldfrank, the income of which is to help deserving students in time of special need. Established
3,220.00	GRAHAM SCHOOL SCHOLARSHIP FUND: Gift of the Alumnae Association of the Graham School. The income of the fund is to be applied to the tuition of a student. Established 1907
6,021.49	HEALTH FUND: Gift of an anonymous donor to promote the physical health of the students and officers of the College. Established 1917
1,091.95	HERRMAN BOTANICAL PRIZE FUND: Gift of the late Mrs. Esther Herrman, for a prize to be awarded annually to the most proficient student in botany
3,416.96	HERTZOG (EMMA) SCHOLARSHIP FUND: Gift to establish a scholarship in memory of Emma Hertzog, who for a long period of years was prominently identified with the intellectual life of Yonkers. The income is awarded annually to a graduate of the Yonkers High School. Established 1904
	JACKSON (CHARLOTTE LOUISE) SCHOLARSHIP FUND: Legacy from the estate of the late Fannie A. Jackson to establish a fund in memory of her sister, Charlotte Louise Jackson. The income of this fund is to be used for a scholarship to be awarded to a graduate of the Yonkers High School, selected by or under the direction of the Board of Education of the City of Yonkers, New York. Estab-
5,000.00	lished 1929
10.035.4	Legacy from the estate of Mrs. Mary E. Larkin Joline. The income of the fund is to be used for the maintenance and preservation of the musical instruments given to Barnard College by Mrs. Joline, and to establish a scholarship for a student of music. Established
10,000.00	JOLINE (MARY E. LARKIN) PROFESSORSHIP FUND: Legacy from the estate of Mrs. Mary E. Larkin Joline. The income of the fund is to be used for the maintenance of a professorship of
100,390.00	music and the musical arts. Established 1927

KAUFMANN (JESSIE) SCHOLARSHIP FUND: Gift of Mr. Julius Kaufmann to establish a scholarship in memory of his daughter, Jessie Kaufmann. The annual income of the fund is awarded on the merits of the entrance examinations to a student who, after careful investigation, is found to have no relative able to assist her financially. Established 1902	4,013.75
KINNICUTT (ELEONORA) SCHOLARSHIP FUND: Gift of friends of the late Mrs. Francis P. Kinnicutt, a Trustee of the College, to establish a scholarship. The income is awarded to a student who needs assistance. Established 1911	4,957.00
KOHN MATHEMATICAL PRIZE FUND: Gift of Mrs. S. H. Kohn for a prize to be awarded annually to a senior for excellence in mathematics	1,062.08
LAIDLAW (JAMES LEES) FUND: Gift of Mr. and Mrs. James Lees Laidlaw. The income of the fund is to be used to promote international understanding by bringing to the College visiting professors and lecturers from foreign countries. Established 1929	10,000.00
LARNED (AUGUSTA) SCHOLARSHIP FUND: A legacy from the estate of Augusta Larned for a scholarship, the income of which is to be awarded by the Faculty Committee on Scholarships to a student in good standing who is in need of aid. Established 1924	10,647.10
McLEAN (MRS. DONALD) SCHOLARSHIP FUND: Gift of the New York Chapter of the Daughters of the American Revolution. The income of the fund is awarded in conference with a representative of the Chapter to a deserving student who agrees to pursue the study of history (chiefly that of the United States) continuously throughout her college course. Established 1906	2,739.23
MOIR (WILLIAM) SCHOLARSHIP FUND: Legacy from the estate of Mrs. Emily H. Moir in memory of her husband. Established 1912	9,783.75
MURRAY (CAROLINE CHURCH) FUND: Gift of Mr. George Welwood Murray in memory of his wife, Caroline Church Murray. The income of this fund is to be used in aid of needy and deserving students. Established 1918	5,000.00
1919 DECENNIAL FUND: Decennial gift of the Class of 1919 of Barnard College to endow a room in Hewitt Hall. Established 1929	5,000.00
1920 LIBRARY FUND: Decennial gift of the Class of 1920, Barnard College, to establish a fund, the income of which is to be used for the purchase of books of American and British poetry for the Ella Weed Library. Established	
OGILVIE (CLINTON) MEMORIAL FUND: Gift of Mrs. Clinton Ogilvie. The income of this fund is to be applied to the salaries of assistants in the Department of Geology. Established 1914	2,500.00 6,474.68
POPE (MARY BARSTOW) SCHOLARSHIP FUND: Gift in memory of Mary Barstow Pope, sometime teacher in Miss Chapin's School, by her friends, her fellow teachers, and her pupils.	-1777
Established 1913	3,849.40

PRINCE (HELEN) MEMORIAL PRIZE FUND: Gift of Mr. Julius Prince, in memory of his daughter, Helen C. Prince, Class of 1922, to establish a prize to be awarded each year to the undergraduate student who submits the best piece of creative Eng- lish composition. Established 1922	1,212.63
PULITZER (LUCILLE) SCHOLARSHIP FUND: Gift of the late Mr. Joseph Pulitzer in memory of his daughter, Lucille Pulitzer. The income of the fund is to be used for scholarships. Established 1899 and 1903, 1915 and 1916	167,237.11
REED (CAROLINE GALLUP) PRIZE FUND: Gift of Mrs. William Barclay Parsons. Established 1916	1,004.80
SALARY INCREASE FUND: Gift of the Class of 1903, the income of which is to be used to increase salaries. Established 1928	6,100.00
SANDERS (HENRY M.) FUND: Legacy from the estate of Rev. Henry M. Sanders to establish a scholar- ship to be known as and called the Eleanor Butler Sanders Scholar- ship. Established 1922	10,002.63
SCHOLARSHIP FUND: Gift of friends of Barnard College. The income of the fund is applied toward helping deserving students through college. Established	9,698.75
SHAW FUND: A memorial to Anna Howard Shaw. The income is applied towards the expenses of the Department of Government. Established 1920.	6,626.12
SMITH (EMILY JAMES) SCHOLARSHIP FUND: Gift of Emily H. Bourne in honor of Emily James Smith, Dean of Barnard College. The income of the fund is awarded in conference with the founder. Established 1899	2,971.89
SMITH (GEORGE W.) SCHOLARSHIP FUND: Gift of the late Mrs. Martha T. Fiske-Collord, in memory of Mr. George W. Smith, a Trustee of Barnard College. The income of the fund is placed at the disposal of the Dean of Barnard College. Established	4,688.69
SPERANZA (CARLO L.) PRIZE FUND: Gift of an anonymous donor for the founding of a prize in memory of Professor Carlo Leonardo Speranza, to be awarded annually to a student in Barnard College for excellence in Italian. Established	4,088.09
TALCOTT (JAMES) FUND:	1,137.82
Gift of Mr. James Talcott, to found a professorship of religious instruction. Established 1915	99,705.15
TATLOCK PRIZE FUND: Gift in memory of Jean Willard Tatlock, Class of 1895, by her friends, to found a prize to be awarded annually to the undergraduate student most proficient in Latin. Established 1917	1,291.11
TILLOTSON (EMMA A.) SCHOLARSHIP FUND: Legacy from the estate of Emma A. Tillotson. Established 1910	3,800.34
VELTIN SCHOOL SCHOLARSHIP FUND: Gift of the alumnae of Mlle Veltin's School. Established 1905	2,739.23

VON WAHL PRIZE FUND:
Gift of friends of Constance von Wahl, 1912, to found a prize to be awarded annually to a senior who has rendered the highest type of service to the College. Established 1915
WEED (ELLA) SCHOLARSHIP FUND: Gift of the pupils of Miss Anne Browne's School, in memory of Ella Weed, who was Chairman of the Academic Committee of the Board of Trustees of Barnard College during the first five years of its existence. Established 1897
WHITMAN MEMORIAL FUND: Gift of Mr. Malcolm Whitman, in memory of his wife, Janet McCook Whitman, a former student and graduate of Barnard College. The income of the fund is to be used towards the support of a Chair of Philosophy. Established 1920 5,515.69
ZIESER (GERALDINE VOIT) MEMORIAL FUND: Gift of Mr. and Mrs. Julius H. Zieser in memory of their daughter, Geraldine Voit Zieser, Class of 1930. The income of the fund is to be used to purchase books for the Italian courses of the College. Established 1929
\$905,568.18
C. For Construction and Equipment of Buildings
BURGESS (ANNIE P.) FUND:
Legacy from the estate of Mrs. Annie P. Burgess. The principal of this fund was invested in Hewitt Hall 1924–1925. Established 1913 . \$66,363.64
GIBBES FUND: Legacy from the estate of the late Emily O. Gibbes. The principal of this fund was invested in Hewitt Hall 1924–1925. Established 1908 223,193.44
KENNEDY (JOHN STEWART) FUND: Legacy from the estate of the late John Stewart Kennedy. The principal of this fund was invested in Hewitt Hall 1924-1925. Established 1910
SAGE (RUSSELL) MEMORIAL FUND:
Legacy from the estate of Mrs. Russell Sage. The principal of this fund was invested in Hewitt Hall 1924-1925. Established 1920 . 506,158.95
\$843,399.27
TAX VALUATION OF BARNARD COLLEGE PROPERTY FOR THE YEAR 1929-1930
Lot No. 1, Block No. 1992, 119th-120th Streets and Claremont
Avenue and Broadway
Land
Total
Lot No. 1, Block No. 1989, 116th-119th Streets and Claremont Avenue and Broadway
Land
Total
Lot No. 27, Block 1989 Land
(Garden)



FINANCIAL REPORT OF THE COLLEGE OF PHARMACY 1929–1930



COLLEGE OF PHARMACY—INCOME AND EXPENSE ACCOUNT—1929–1930

\$310,380.35	0-3		
5,792.29		Balance June 30, 1930	
60101	300.000 5,276.67 215.62	Centennial Celebration	
7 CO	10,825,68 1,500.00 1,955.15 916,91	Annuty Insurance College Publication Refund of Fees Trustees Special Action	
200.00	700.00	Prizes and Scholarships	
	898.69 17,483.66	Library	\$310,380.35
	23,080.33	Building Maintenance Student Activities	Bank Interest 2,803.11 Miscellaneous 1,305.23
	\$145,993.55	25,050.00 Eusiness Eusiness	Tuition Fees Deposits 255,630.00 Membership Dues
		DISBURSEMENTS	

COLLEGE OF PHARMACY—BALANCE SHEET—JUNE 30, 1930

ASSETS	LIABILITIES
	Plant Fellowship \$27,280.55
Eand	Breitenbach Fund
	Inheritance Fund
Equipment:	
Library 50,000.00	
Furniture and Fixtures 74,168.50	
Apparatus and Chemicals:	
Materia Medica 40,654.79	Alumni Prize Fund
Pharmacy 21,121.26	Diekman Prize Fund
Chemistry	Depreciation 69,500.00
	Excess of Assets over Liabilities 742,181.96
Investment Funds: Rands	\$919,964.79
	•
1	
Cash:	
General Funds 76,288.52	
0.002,0	
\$919,964.79	

FINANCIAL REPORT OF TEACHERS COLLEGE 1929–1930

TEACHERS COLLEGE

DEBITS

ENDOWMENT ASSETS Investments Consolidated: Bonds, Stocks, and Mortgages	93 644 077 W		
Due from Plant	1,334,279.81	\$4,001,038.12	
Cash Awaiting Investment	24,040.79	\$4,001,030.12	
Invested Separately: The Lincoln School Endowment: Bonds, Stocks, and Mortgages Cash Awaiting Investment		\$2,999,237.89	
Total Endowment Assets			\$7,000,276.01
PLANT ASSETS	4		
Educational Plant Assets:			
Land, Buildings, and Equipment .			
Call Loans (see below)	28,459.33	\$8,158,300.63	
Dormitory and Dining Hall Plant Assets		,	
Land, Buildings, and Equipment		2,464,310.99	
T + 1 D1 4			0666-
Total Plant Assets			\$10,622,611.62
Assets of Current Funds and Reserves:			
Cash on Deposit and on Hand	\$118,421.39		
Call Loans—\$300,000 less Plant	\$110,421.39		
Funds Investment \$28,450.33	271,540.67		
Advances from Officers	2/1,340.0/		
Emergency Fund	4,021.85		
Student Loans	102,244.77		
Investment of Reserve for Bancroft			
Tunnel	1,000.00		
Parents Publishing Association Stock	100,110.00		
Investments of Teachers Retirement			
Funds	289,715.35	\$887,054.03	
Current Inventories and Deficits:			
Advances for Travel and Expense .	\$10,221.72		
Accounts Receivable	88,966.95		
Deferred Charges to Expense	1,083.18		
Bureau of Publications, Net Assets			
Other than Cash	120,137.51		
Dining Hall Foods and Supplies	17,353.31		
Accumulated Deficits:	0.66-		
International Institute	816.62		•
Practical Arts Research	5,322.43		
Horace Mann School	17,492.95		
Dining Halls	46,036.13	\$308,348.58	
Dining Hans	917.78	\$300,340.50	
Total Current Assets and Deficits	3		\$1,195,402.61
TOTAL BALANCE SHEET DEBITS .			\$18,818,290.24

BALANCE SHEET, JUNE 30, 1930 CREDITS

ENDOWMENT FUNDS Funds Invested as a Whole: General Endowment Funds . . . \$3,020,895.60 Restricted Endowment Funds . . . 937,700.39 Endowment Profit and Loss . . . 42,442.13 \$4,001,038.12 Funds Invested Separately: The Lincoln School Endowment . . \$3,000,000.00 PLANT FUNDS AND LIABILITIES Educational Plant Capital \$8,058,300.63 100,000.00 \$8,158,300.63 Due to Endowment Dormitory and Dining Hall: Plant Capital \$1,030,031.18 Due to Endowment 1,234,279.81 200,000.00 \$2,464,310.99 Mortgage Payable Total Plant Funds and Liabilities \$10,622,611.62 CURRENT FUNDS AND LIABILITIES Current Funds and Reserves: Teachers Retirement Funds . . . \$312,167.22 Parents Publishing Association Fund 100,110.00 Student Loan Funds 129,194.87 Funds for Designated Purposes . . 164,981.12 Unexpended Income from Restricted Endowment 15,069.32 3,279.46 Officers Emergency Fund Reserves for Current Purposes . . 10,027.02 Teachers College Surplus 120,974.74 The Lincoln School Surplus 3,936.71 Horace Mann School for Boys Surplus 27,313.57 \$887,054.03 Current Working Capital and Liabilities: Teachers College Working Capital . \$22,973.24 Bureau of Publications Working 120,137.51 Current Liabilities, Prepayments and Deposits 165,021.83 Income Credits 1930-1931 216.00 \$308,348.58 Total Current Funds and Liabilities \$1,195,402.61 TOTAL BALANCE SHEET CREDITS \$18,818,290.24

CONDENSED STATEMENT OF RECEIPTS AND **EXPENDITURES**

1929-1930

Receipts 1929-1930	Expenditures 1929-1930	Surplus	Deficit
\$1,888,236.87	\$1,845,945.22	\$42,291.65	
120,844.75	120,844.75		
109,797.48	109,797.48		
87,192.16	92,514.59		\$5,322.43
43,261.67	43,261.67		
300,716.91	318,209.86		17,492.95
206,334.20	188,074.75	18,259.45	
392,738.99	390,794.40	1,944.59	
	232,781.31	45,350.83	
474,645.38	514.576.53		39,931.15
591,944.91	592,473.21		528.30
\$4.402.845.46	\$4.440.272.77		
	\$1,888,236.87 120,844.75 109,797.48 87,192.16 43,261.67 300,716.91 206,334.20 392,738.99 278,132.14 474,645.38 591,944.91	\$1,888,236.87 \$1,845,945.22 120,844.75 120,844.75 109,797.48 109,797.48 87,192.16 92,514.59 43,261.67 43,261.67 300,716.91 318,209.86 206,334.20 188,074.75 392,738.99 390,794.40 278,132.14 232,781.31 474,645.38 514,576.53	\$1,888,236.87 \$1,845,945.22 \$42,291.65 120,844.75 120,844.75 109,797.48 109,797.48 87,192.16 92,514.59 43,261.67 43,261.67 300,716.91 318,209.86 206,334.20 188,074.75 18,259.45 392,738.99 390,794.40 1,944.59 278,132.14 232,781.31 45,350.83 474,645.38 514,576.53 591,944.91 592,473.21

GIFTS, GRANTS, AND BEQUESTS, 1929-1930

ENDOWMENT The Lincoln School Endowment General Education Board	23,988.70	\$2,024,988.70
John Hilligas Mac Vallici Luid		p=10=41300-70
PLANT The Lincoln School Research Building Fund Various Contributors	12,000.00	12,000.00
CURRENT PURPOSES		
College		
Service Bureau for Classical Teachers		
American Classical League	4,000.00	
Curriculum Research		
Board of Education, Cumberland, Allegheny County,		
Maryland	2,000.00	
Board of Education, Montgomery County, Maryland . Dean's Fund for Emergencies	1,000.00	
Mr. V. Everit Macy	500.00	
Mr. Dunlevy Milbank	1,000.00	
Kindergarten Education Fund	1,000.00	
Ethical Culture School	600.00	
Kindergarten-First Grade Education	1,200.00	
State Aid for the Blind		
University of the State of New York	300.00	
Normal School Education		
Carnegie Corporation for 1928-1929	10,000.00	
for 1929–1930	10,000.00	
Nursery School for Children of Columbia Dames		
Trustees	450.00	
Mr. Mortimer L. Schiff	2,000.00	
Rural Radio Education	2,000.00	
The Keith Fund, Inc	5,600.00	
Research Fellowship in the Department of Advisers of	0,,	
Women and Girls		
Mr. Felix Warburg	1,500.00	
Series of Lectures on Negro Education and Race Relations		
Julius Rosenwald Fund	1,000.00	
Nursing Education		
The Hartley Corporation	17,000.00	
Practical Arts Research International Magazine Company	1,080.00	
Arthur W. Dow Scholarship	1,080.00	
Psychiatric Education	190.33	
The Hartley Corporation	5,000.00	
George D. Strayer Anniversary Funds		
Trustees, Students, Faculty, Friends	4,368.00	
Nutting Historical Society		
Students	20.00	

Research Divisions International Institute

International Education Board	102 981 99	
Character Education Inquiry	103,002.07	
Institute of Social and Religious Research.	5,000.00	
Vocational Guidance Study	3,000.00	
The Commonwealth Fund	9,787.50	
Theory, Practice and Measurement of Intellect and	9,707.30	
Capacity		
Carnegie Corporation	11,000.00	
Psychology of Learning	11,000.00	
International Auxiliary Language Association in the		
United States, Inc.	5,000.00	
Rural Experimental Schools, Wilton, Connecticut	3,000.00	
The Keith Fund, Inc.	8,300.00	
Holyoke, Massachusetts, Survey	6,000.00	
Survey of Higher Education in Maine	1,375.00	
Missouri Survey	25,450.30	
Practical Arts Research and Equipment	36,397.23	
Child Development Institute	30,397.23	
The Laura Spelman Rockefeller Memorial	100,000.00	
Institute of School Experimentation	100,000.00	
Sundry Items	44.00	
Laboratory Schools	44.00	
Interest on the Lincoln School Endowment		
General Education Board	45,890.41	
The Lincoln School	431090141	
Mr. and Mrs. H. G. Friedman	500.00	
Horace Mann Elementary and Girls High School	0	
Parents Association	700.00	
Endowment Fund Committee	8,000.00	
Mr. Maurice Goldman	500.00	
Horace Mann School for Boys		
Administrative Board	8,381.70	
Mr. Julius Buchsbaum	1,000.00	
Parents Association	950.00	
Mr. William Schiff	1,200.00	
Student Loan Funds		
Miss Mercy Jane Hayes	1,000.00	
Miss Anna Laudenberger	21.79	
Dr. and Mrs. Alfred Friedlander	100.00	
Miss Reba Harris	25.00	
Students in Music Education	108.00	
Jackson Heights College Women's Club	100.00	
		\$440.530.15
		\$449,530.15
Total Gifts, Grants, and Bequests Received During Year 1929-	1930	\$2,486,518.85

FINANCIAL REPORT OF ST. STEPHEN'S COLLEGE 1929–1930



ST. STEPHEN'S COLLEGE—BALANCE SHEET—JUNE 30, 1930

		123,506,25 904,051.74 \$1,245,128.16				\$31,991.71
	\$149,490.63 142,548.23 7,244.18	\$123,506.25 904,051.74 217,570.17	\$3,639.33 16,228.69 111,797.82	\$131,665.84		99,674.13
LIABILITIES	Endowment and Special Funds: Endowment Funds, unrestricted as to \$149,490.63 income finds, restricted as to income 142,548.23 Special Funds, restricted	Total Endowment and Special Funds. Plant Funds: Grounds Fund. Buildings Fund. 904.051.74 Equipment Fund	Current Liabilities and Surphus: Advance Receipts from Students Accounts Payable Notes Payable		Excess of Current Liabilities and Surplus over Current Assets and Deferred	Charges
	\$292,038.86	903.553.75 217.570.17 \$1,244,630.17				\$39,733.88
	ssets: \$15.076.25 108,430.00 \$123,506.25	903.553.75	\$13,521.32	\$10,348.35	\$15,864.21	arges
ASSETS	Assets: 		\$13,196.32	\$500.00 1,635.88 4,422.35 3,790.12	\$9,919.55 1,342.91 4,601.75	d Deferred Cl
	Endowment and Special Fund Assets: Investment Securities	Buildings Equipment Total Plant Assets Current Assets and Deferred Charges:	Cash: Chase National Bank Petty Cash on Hand Accounts Receivable:	Advances Student Loans Student Loans Accrued Interest on Secur- ities Endowment Pledges Re- ceivable	Deferred Charges: Unexpired Insurance Prepaid Interest on Loans Prepaid Expenses	Total Current Assets and Deferred Charges

ST. STEPHEN'S COLLEGE—INCOME AND EXPENSE ACCOUNT—GENERAL FUNDS

FOR THE YEAR ENDING JUNE 30, 1930

		\$201,302,22
\$137,096.96 36.939.42 4.727.69 35,881.23 900.00	\$215,545.30 743.35 500.27 14,243.08	
EXPENSES ad Instruction enance		
# EXPENSES # ## ## ## ## ## ## ## ## ## ## ## ##	Total Expenses Deficit being excess of Expense over Income for Maintenance for the Fiscal Year ended June 30, 1930 . \$14 Less adjustment applicable to prior years	
\$91,276,36 17,292.88 39,837.20 52,895.78		\$201,302.22
From Students' Fees		11











